

SERVICE MANUAL

4-CHANNEL/2-CHANNEL AMPLIFIER

SANSUI QA-5000
QA-6000



Sansui

SANSUI ELECTRIC CO., LTD.

1. SPECIFICATIONS

1-1. QA-5000

AUDIO SECTION

POWER OUTPUT

10watts per channel, min. RMS, four channels driven into 8 ohms from 40Hz to 20KHz, with no more than 0.8% total harmonic distortion.

Music power (IHF) 70W (4 ohms 1,000Hz)
65W (8 ohms 1,000Hz)

Continuous RMS power output per channel
four channels driven 12W (8 ohms 1,000Hz)
BTL connection 14W (8 ohms 1,000Hz)

LOAD IMPEDANCE 8 ohms

POWER BANDWIDTH 40 to 20,000Hz
at or below rated min.
RMS power output and
total harmonic distortion

TOTAL HARMONIC DISTORTION

OVERALL (from AUX) less than 0.8%
at or below rated min.
RMS power output

INTERMODULATION DISTORTION

(70Hz : 7000Hz = 4 : 1 SMPTE method)

OVERALL (from AUX) less than 0.8%
at rated min. RMS power
output

FREQUENCY RESPONSE (at 1 Watt power output)

OVERALL (from AUX) 30 to 30,000Hz ± 1 dB

EQUALIZATION (RIAA curve)

..... 30 to 15,000Hz ± 1.0 dB

DAMPING FACTOR 40 (8 ohms)

CHANNEL SEPARATION (at 1,000Hz)

PHONO better than 45dB

TUNER, AUX, TAPE better than 45dB

HUM AND NOISE (IHF)

PHONO better than 65dB

TUNER, AUX, TAPE better than 70dB

INPUT SENSITIVITY AND IMPEDANCE (1,000Hz for rated power output)

PHONO 2.5mV 50K Ω

(Max. input capability; more than 100mV at 0.5% distortion)

TUNER, AUX 150mV 50K Ω

TAPE PLAY Pin Jacks 150mV 50K Ω

TAPE REC/PLAY DIN Socket

..... 150mV 50K Ω

RECORDING OUTPUT

TAPE REC Pin Jack 150mV

TAPE REC/PLAY DIN Socket

..... 30mV

TONE CONTROLS

BASS +12dB, -12dB at 50Hz

TREBLE +12dB, -12dB at 10,000Hz

LOUDNESS +8dB at 50Hz

+3dB at 10,000Hz

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1-2. QA-6000

AUDIO SECTION

POWER OUTPUT

18watts per channel, min. RMS, four channels driven into 8 ohms from 20Hz to 20KHz, with no more than 0.5% total harmonic distortion.

Music power (IHF) 120W (4 ohms 1,000Hz)

100W (8 ohms 1,000Hz)

BTL connection 150W (8 ohms 1,000Hz)

Continuous RMS power output

each channel driven 25W/ch. (8 ohms 1,000Hz)

BTL connection 50W/ch. (8 ohms 1,000Hz)

four channels driven 22W x 4 (8 ohms 1,000Hz)

BTL connection 45W x 2 (8 ohms 1,000Hz)

BTL connection 40W x 2 (8 ohms 20~20,000Hz)

LOAD IMPEDANCE 8 ohms

POWER BANDWIDTH 20 to 20,000Hz

at or below rated min.

RMS power output and
total harmonic distortion

TOTAL HARMONIC DISTORTION

OVERALL (from AUX) less than 0.5%

at or below rated min.

RMS power output

INTERMODULATION DISTORTION

(70Hz:7,000Hz=4:1 SMPTE method)

OVERALL (from AUX) less than 0.5%

at rated min. RMS power
output

FREQUENCY RESPONSE (at 1 Watt power output)

OVERALL (from AUX) 20 to 40,000Hz ± 1 dB

EQUALIZATION (RIAA curve)

..... 30 to 15,000Hz ± 0.5 dB

DAMPING FACTOR 50 (8 ohms)

CHANNEL SEPARATION (at 1,000Hz)

PHONO better than 45dB

TUNER, AUX, TAPE better than 50dB

HUM AND NOISE (IHF)

PHONO better than 65dB

TUNER, AUX, TAPE better than 70dB

INPUT SENSITIVITY AND IMPEDANCE (1,000Hz for rated power output)

PHONO 2.5mV 50K Ω

(Max. input capability; more than 270mV at 0.5% distortion)

TUNER, AUX 100mV 50K Ω

TAPE PLAY Pin Jacks 100mV 50K Ω

TAPE REC/PLAY DIN Socket

..... 100mV 50K Ω

RECORDING OUTPUT

TAPE REC Pin Jacks 100mV

TAPE REC/PLAY DIN Socket

..... 30mV

SWITCHES AND CONTROLS

BASS +12dB, -12dB at 50Hz

TREBLE +12dB, -12dB at 15,000Hz

LOUDNESS +8dB at 50Hz
+3dB at 10,000Hz

LOW FILTER -3dB at 70Hz (6dB/oct)

HIGH FILTER -3dB at 7,000Hz (6dB/oct)

1-3. QA-5000, QA-6000

4-CHANNEL DECODER SECTION

QS DECODER (TYPE-A QS VARIO MATRIX*)

SEPARATION 20dB between adjacent
channels
30dB between diagonal
channels

DISTORTION less than 0.1% at 1,000Hz

FREQUENCY RESPONSE 20 to 30,000Hz

QS SYNTHESIZER (TYPE-A QS VARIO MATRIX)

SEPARATION Equivalent to QS DECODER

DISTORTION Equivalent to QS DECODER

FREQUENCY RESPONSE

..... Equivalent to QS DECODER

SQ FUNCTION (PHASE MATRIX**)

SEPARATION 20dB (LF-RF)

12dB (CF-CB)

CD-4 DEMODULATOR

SEPARATION (STD test signal at 1,000Hz)

..... 45dB (L-R)

25dB (F-B)

FREQUENCY RESPONSE (STD test signal at REC OUT)

..... 30 to 15,000Hz MAIN-CH.

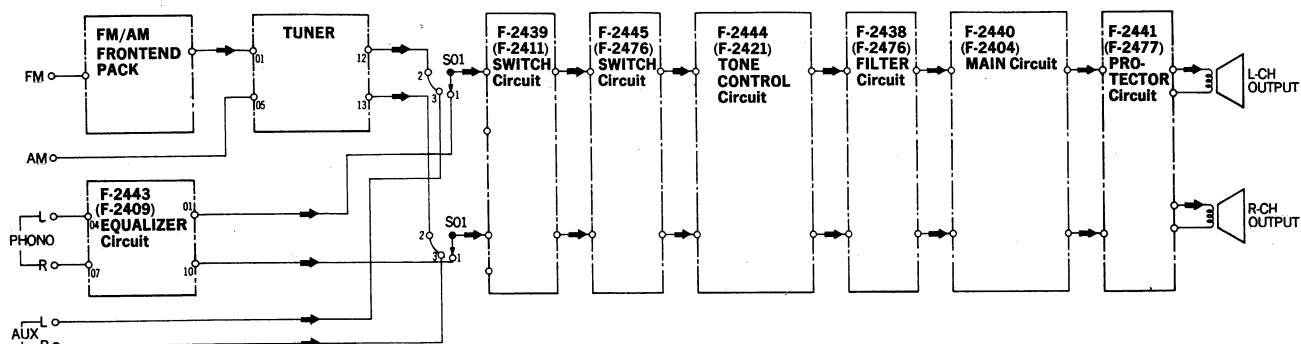
*U.S. Patent No. 3825684

**U.S. Patent No. 3783192

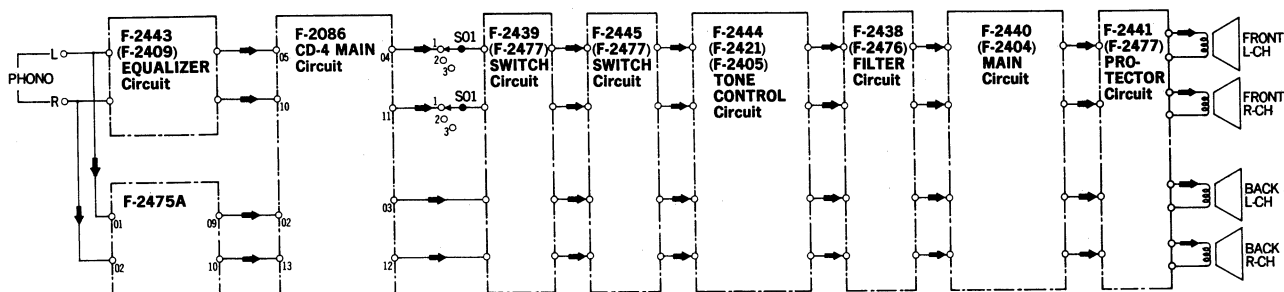
* Design and specifications subject to change without notice for improvements.

2. BLOCK DIAGRAM (QA-5000, QA-6000)

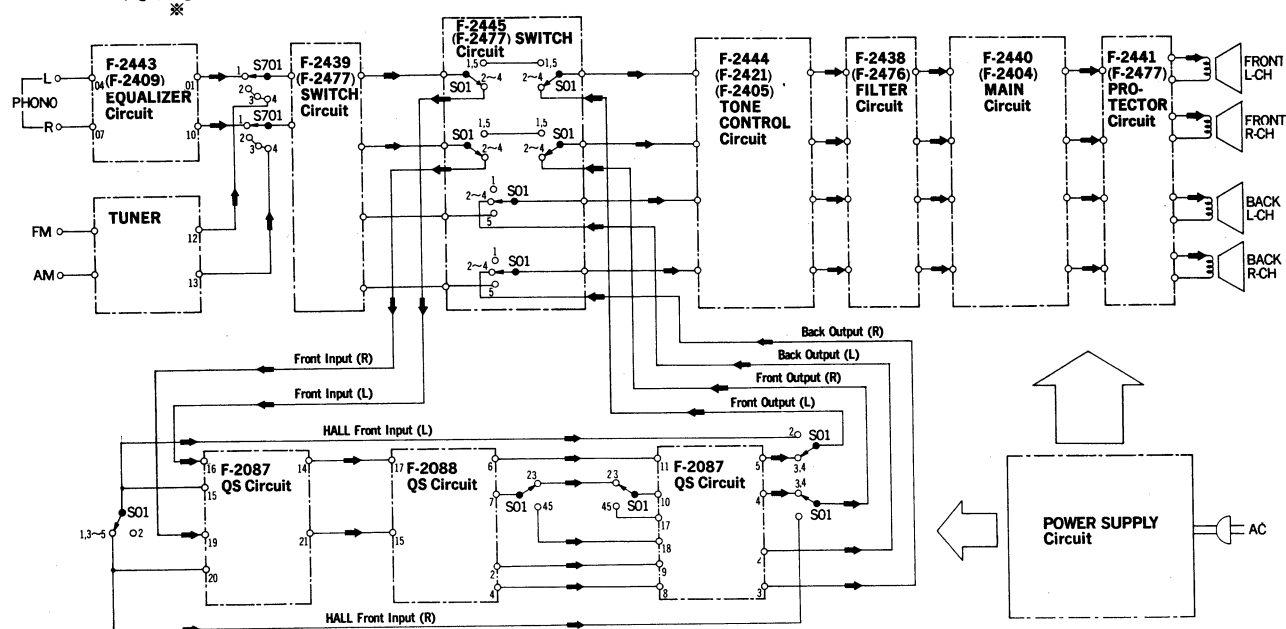
2-CH DIRECT OPERATIVE BLOCK DIAGRAM



CD-4/4-CH DIRECT OPERATIVE BLOCK DIAGRAM



SYNTHESIZER, QS, SQ, OPERATIVE BLOCK DIAGRAM



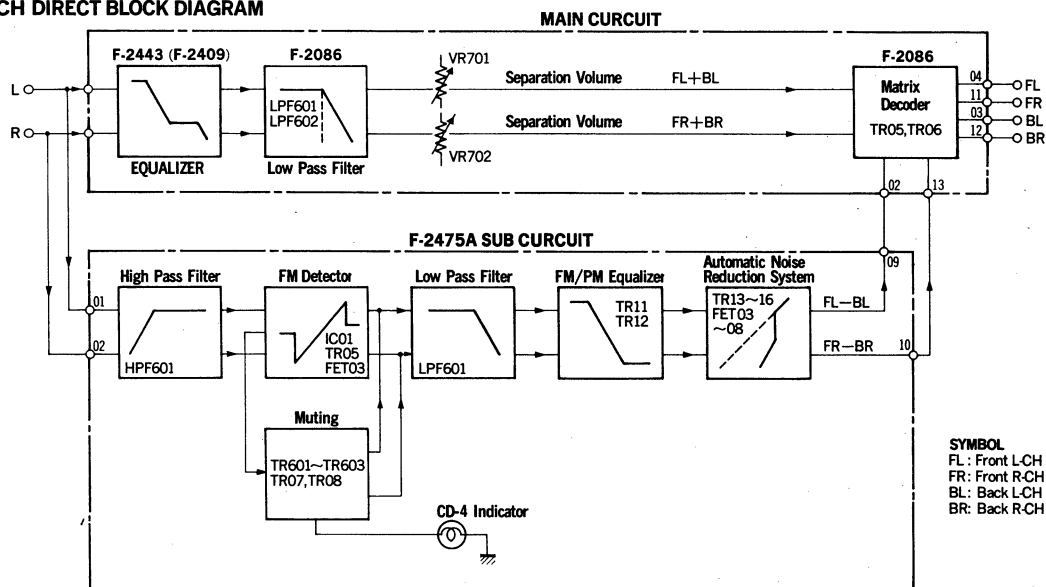
S701: SELECTOR
1. PHONO
2. FM AUTO
3. FM MONO (FM MUT. OFF)
4. AM

S01: FUNCTION
1. 2-CH
2. SYNTHESIZER SURROUND
3. SYNTHESIZER HALL
4. QS
5. SQ
6. CD-4/DIRECT

* F-number described in parentheses
() means the name of Printed Circuit Board used in QA-5000.

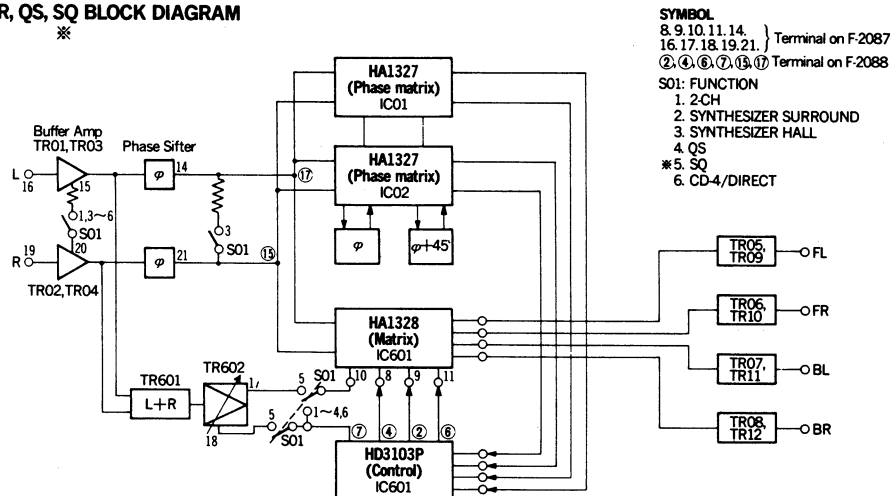
※SQ is a trade mark of CBS, INC.™

CD-4/4-CH DIRECT BLOCK DIAGRAM



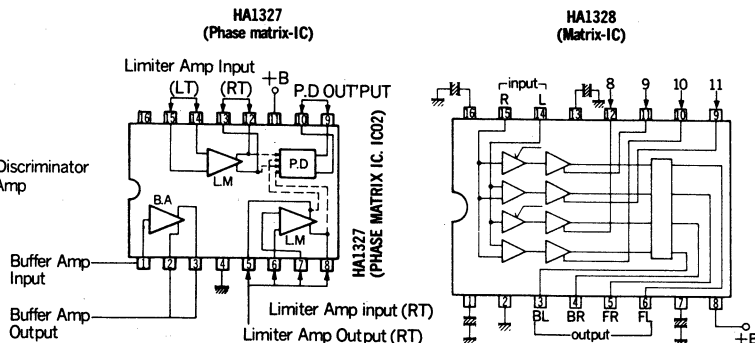
SYMBOL
FL: Front L-CH
FR: Front R-CH
BL: Back L-CH
BR: Back R-CH

SYNTHESIZER, QS, SQ BLOCK DIAGRAM



SYMBOL
8, 9, 10, 11, 14, 16, 17, 18, 19, 21 } Terminal on F-2087
②, ④, ⑥, ⑦, ⑬, ⑮ } Terminal on F-2088
S01: FUNCTION
1. 2CH
2. SYNTHESIZER SURROUND
3. SYNTHESIZER HALL
4. QS
*5. SQ
6. CD-4/DIRECT

SYMBOL
L.M: Limiter
P.D: Phase Discriminator
B.A: Buffer Amp



3. ALIGNMENT AND ADJUSTMENT

3-1. Regulated Supply Voltage Adjustment (QA-5000, QA-6000)

Note: 1. Master VolumeMinimum
2. Check volt AC power line

STEP	SUBJECT	EQUIPMENT	MEASURE OUTPUT		ADJUST		ADJUST FOR
			QA-5000	QA-6000	QA-5000	QA-6000	
1	Supply voltage to 4-CH	DC Volt Meter	Terminal of 01 on F-2477 (Fig. 3-1)	Lead Colour of Red on F-2479 (Fig. 3-3)	VR01 on F-2477 (Top Side) (Fig. 3-4)	VR601 no F-2459 (Fig. 3-3)	◦ 25V
2	Supply voltage to B.T.L.	DC Volt Meter	Collector of TR10 on F-2405 (Fig.3-4)	Test Point of Bottom side on F-2445 (Fig. 3-2)	VR02 on F-2477 (Fig. 3-4)	VR602 on F-2459 (Fig. 3-3)	◦ 0V

Fig. 3-1

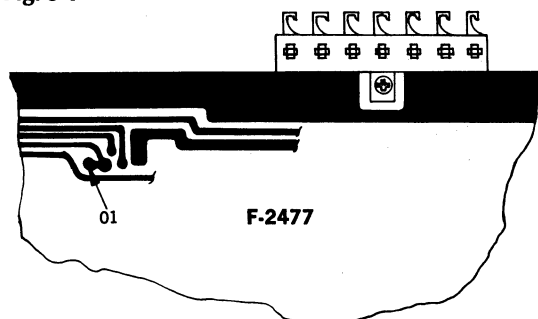


Fig. 3-3

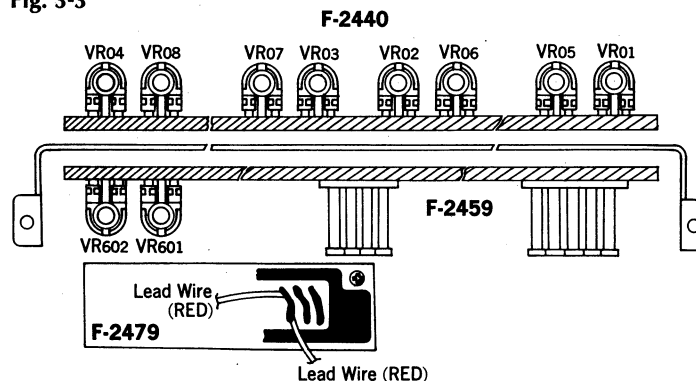


Fig. 3-2

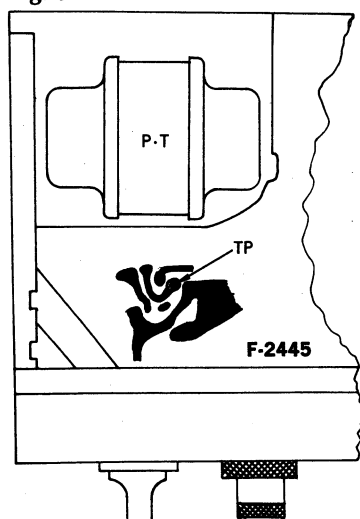
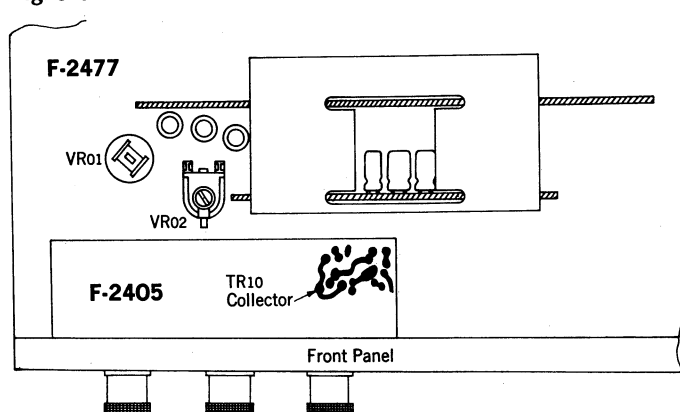


Fig. 3-4



3-2. Driver Circuit Board Adjustment (QA-6000 Only)

- Note:** 1. Master VolumeMinimum
 2. Make the SP terminals free (no load).
 3. For adjustment, run the unit for more than 3 minutes after the power is switched on.

STEP	SUBJECT	EQUIPMENT	MEASURE OUTPUT	ADJUST	ADJUST FOR	CONDITION
1.	DC 0V Front L-CH	DC Volt meter	Speaker terminal Front L-CH (Fig. 3-5)	F-2440 VR01 (Fig. 3-7)	0V	◦ Turn all volumes, VR05, 06, 07, 08 counterclockwise fully
2.	Front R-CH	DC Volt meter	Speaker terminal Front R-CH (Fig. 3-5)	F-2440 VR02 (Fig. 3-7)	0V	
3.	DC 0V Back L-CH	DC Volt meter	Speaker terminal Back L-CH (Fig. 3-5)	F-2440 VR03 (Fig. 3-7)	0V	
4.	DC 0V Back R-CH	DC Volt meter	Speaker terminal Back R-CH (Fig. 3-5)	F-2440 VR04 (Fig. 3-7)	0V	
5.	Bias Current Front L-CH	DC milliammeter	F-2441 F01 (Fig. 3-6)	F-2440 VR05 (Fig. 3-7)	27mA	◦ Step down meter's range accordingly.
6.	Bias Current Front R-CH	DC milliammeter	F-2441 F02 (Fig. 3-6)	F-2440 VR06 (Fig. 3-7)	27mA	
7.	Bias Current Back L-CH	DC milliammeter	F-2441 F03 (Fig. 3-6)	F-2440 VR07 (Fig. 3-7)	27mA	
8.	Bias Current Back R-CH	DC milliammeter	F-2441 F04 (Fig. 3-6)	F-2440 VR08 (Fig. 3-7)	27mA	

Fig. 3-5

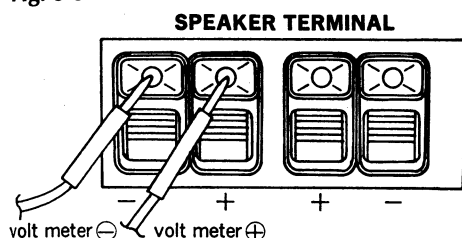


Fig. 3-6

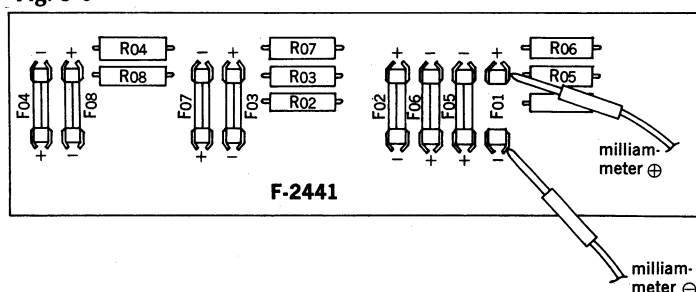
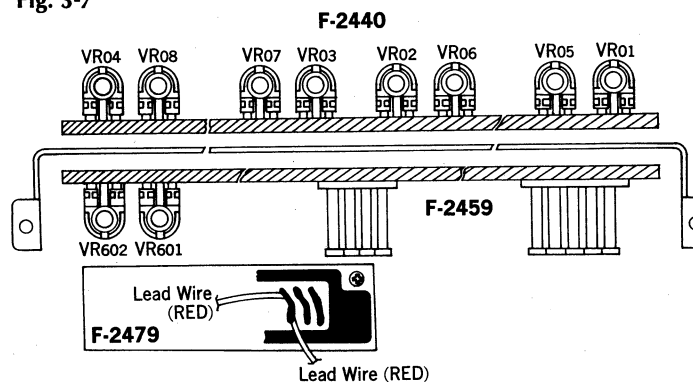


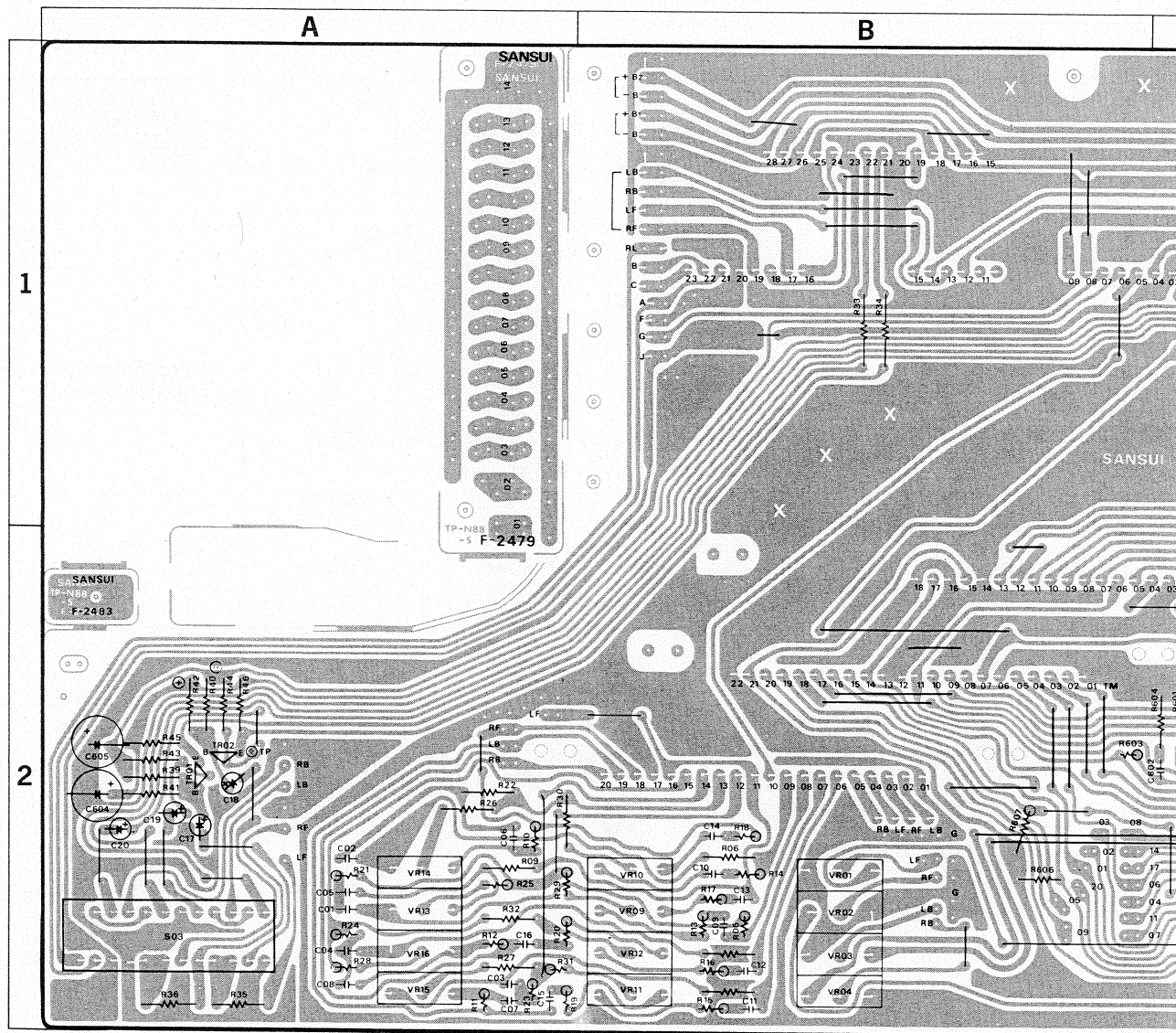
Fig. 3-7



4. PARTS LOCATION AND PARTS LIST

4-1. F-2445 Mother Circuit Board (Stock No. 7592330 Complete Circuit Board F-2445)

Conductor Side (QA-6000)

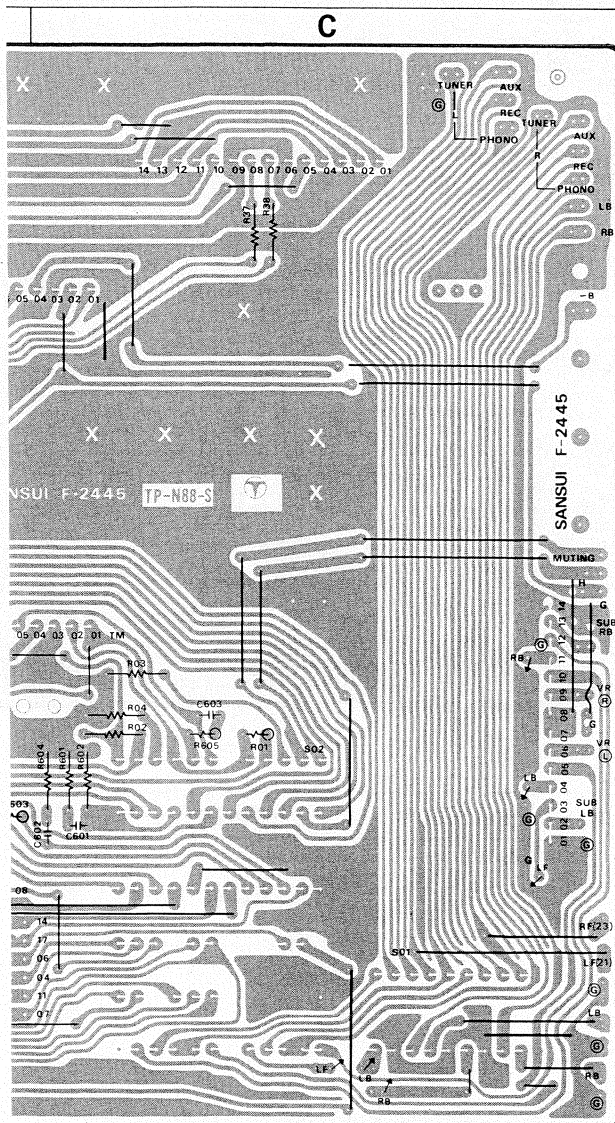


Parts List

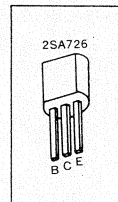
Parts No.	Stock No.	Description	Position
TR01, 02	0300410, 1	2SA726 (F, G) Transistor	2 A
VR01-04	1060350, 1	250k Ω (MN) \times 4 Balance VR	2 B
VR09-12	1060430, 1	100k Ω (B) \times 4 Treble VR	2 B
VR13-16	1060430, 1	100k Ω (B) \times 4 Bass VR	2 A
S01	1102610, 1	SRE-2-5-3 Selector Switch	2 C
S02	1106140, 1	SRE-6-22-5 Decoder Mode Switch	2 C
S03	1102620, 1	SRE-2-9-2 Power Amplifier Switch	2 A
C01, 02	0600567	0.056 μ F	2 A
C03, 04	0600567	0.056 μ F	2 A
C05, 06	0600567	0.056 μ F	2 A
C07, 08	0600567	0.056 μ F	2 A

Parts No.	Stock No.	Description	Position
C09, 10	0601476	0.0047 μ F	2 B
C11, 12	0601476	0.0047 μ F	2 B
C13, 14	0601476	0.0047 μ F	2 B
C15, 16	0601476	0.0047 μ F	2 A
C17, 18	0519102	3.3 μ F	2 A
C19, 20	0519102	3.3 μ F	2 A
C601	0600157	0.015 μ F	2 C
C602	0600227	0.022 μ F	2 C
C603	0600567	0.056 μ F	2 C
C604	0513470	47 μ F 25V E.C.	2 A
C605	0511470	47 μ F 10V E.C.	2 A
C606	0657473	0.047 μ F	50V C.C.
C607	0657473	0.047 μ F	50V C.C.

Abbreviations	C.R. : Carbon Resistor	BP.E.C.: Bi-Polar Electrolytic Capacitor
	S.R. : Solid Resistor	C.C. : Ceramic capacitor
	Ce.R. : Cement Resistor	Mi.C. : Mica Capacitor
	M.R. : Metallized Film Resistor	O.C. : Oil Capacitor
	M.C. : Mylar Capacitor	P.C. : Polystyrene Capacitor
	E.C. : Electrolytic Capacitor	T.C. : Tantalum Capacitor



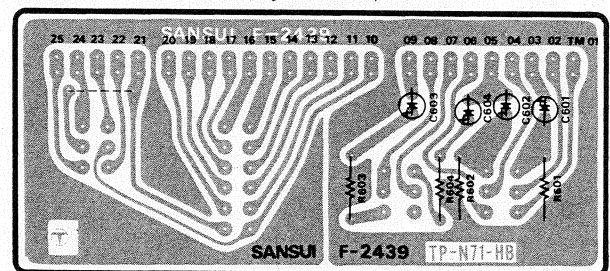
Parts No.	Stock No.	Description	Position
R25, 26	0106272	2.7k Ω	2 A
R27, 28	0106272	2.7k Ω	2 A
R29, 30	0106221	220 Ω	2 A
R31, 32	0106221	220 Ω	2 A
R33, 34	0106222	2.2k Ω	1 B
R35, 36	0106102	1k Ω	2 A
R37, 38	0106222	2.2k Ω	1 C
R39, 40	0107224	220k Ω	2 A
R41, 42	0107823	82k Ω	2 A
R43, 44	0107392	3.9k Ω	2 A
R45, 46	0107392	3.9k Ω	2 A
R601	0107681	680 Ω	2 C
R602	0107152	1.5k Ω	2 C
R603	0106563	56k Ω	2 B
R604	0107471	470 Ω	2 C
R605	0106121	120 Ω	2 C
R606	0106154	150k Ω	2 B
R607	0106154	150k Ω	2 B



4-2. F-2439 Switch Circuit Board

(Stock No. 7592310 Complete Circuit Board F-2439)

Conductor Side (QA-6000)



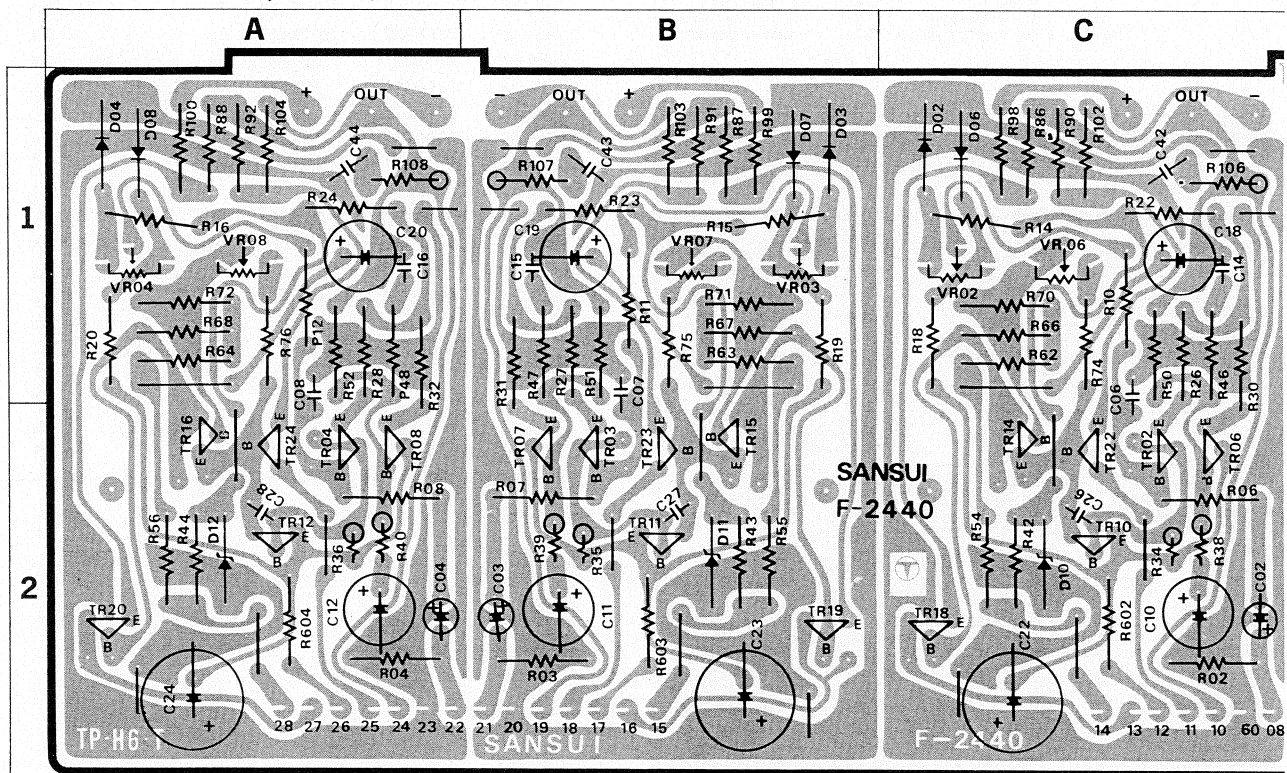
Parts No.	Stock No.	Description	Position
R01	0106563	56k Ω	2 C
R02	0107563	56k Ω	2 C
R03, 04	0107182	1.8k Ω	2 C
R05, 06	0106103	10k Ω	2 C
R07, 08	0106103	10k Ω	2 A
R09, 10	0106103	10k Ω	2 A
R11, 12	0106103	10k Ω	2 A
R13, 14	0106182	1.8k Ω	2 B
R15, 16	0106182	1.8k Ω	2 B
R17, 18	0106272	2.7k Ω	2 B
R19, 20	0106272	2.7k Ω	2 A
R21, 22	0106102	1k Ω	2 A
R23, 24	0106102	1k Ω	2 A

Parts List

Parts No.	Stock No.	Description
C601	0519001	10 μ F
C602	0519001	10 μ F
C603	0519001	10 μ F
C604	0519001	10 μ F
R601	0107563	56k Ω
R602	0107563	56k Ω
R603	0107392	3.9k Ω
R604	0107562	5.6k Ω
	1170350	SX-15-6, 2-CH TAPE
	1170370	SX-15-8, 4-CH TAPE
	1131030	SUB-24 (2 stage), HALL, SURROUND

4-3. F-2440 Driver Circuit Board (Stock No. 7571030 Complete Circuit Board F-2440)

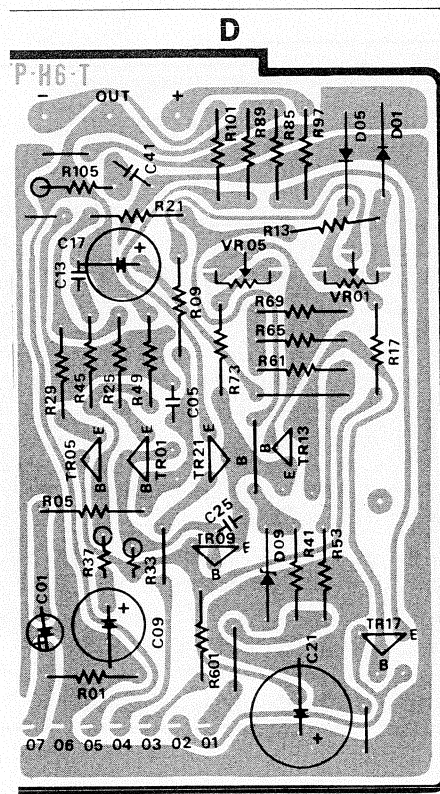
Conductor Side (QA-6000)



Parts List

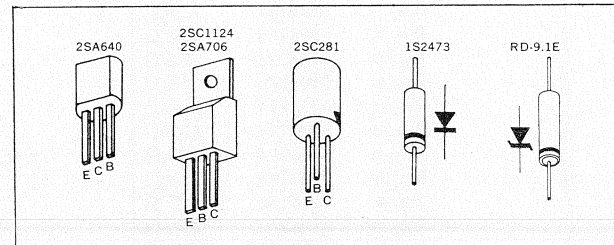
Parts No.	Stock No.	Description	Position
TR01	0300303, 5	2SA640 (K, L)	2 D
TR02	0300303, 5	2SA640 (K, L)	2 C
TR03	0300303, 5	2SA640 (K, L)	2 B
TR04	0300303, 5	2SA640 (K, L)	2 A
TR05	0300303, 5	2SA640 (K, L)	2 D
TR06	0300303, 5	2SA640 (K, L)	2 C
TR07	0300303, 5	2SA640 (K, L)	2 B
TR08	0300303, 5	2SA640 (K, L)	2 A
TR09	0305901, 2	2SC1124 (2, 3)	2 D
TR10	0305901, 2	2SC1124 (2, 3)	2 C
TR11	0305901, 2	2SC1124 (2, 3)	2 B
TR12	0305901, 2	2SC1124 (2, 3)	2 A
TR13	0305121, 2	2SC281 (B, C)	2 D
TR14	0305121, 2	2SC281 (B, C)	2 C
TR15	0305121, 2	2SC281 (B, C)	2 B
TR16	0305121, 2	2SC281 (B, C)	2 A
TR17	0305901, 2	2SC1124 (2, 3)	2 D
TR18	0305901, 2	2SC1124 (2, 3)	2 C
TR19	0305901, 2	2SC1124 (2, 3)	2 B
TR20	0305901, 2	2SC1124 (2, 3)	2 A
TR21	0300381, 2	2SA706 (2, 3)	2 D
TR22	0300381, 2	2SA706 (2, 3)	2 C
TR23	0300381, 2	2SA706 (2, 3)	2 B
TR24	0300381, 2	2SA706 (2, 3)	2 A
Do1	0311160	1S2473D	1 D
Do2	0311160	1S2473D	1 C
Do3	0311160	1S2473D	1 B
Do4	0311160	1S2473D	1 A

Parts No.	Stock No.	Description	Position
D05	0311160	1S2473D	1 D
D06	0311160	1S2473D	1 C
D07	0311160	1S2473D	1 B
D08	0311160	1S2473D	1 A
D09	0316230	RD-9.1E (C)	2 D
	or		
	0316240	RD-9.1E (B)	
	or		
D10	0316230	RD-9.1E (C)	2 C
	or		
	0316240	RD-9.1E (B)	
	or		
D11	0316230	RD-9.1E (C)	2 B
	or		
	0316240	RD-9.1E (B)	
	or		
D12	0316230	RD-9.1E (C)	2 A
	or		
	0316240	RD-9.1E (B)	
VR01	1031470	5k Ω (B)	1 D
VR02	1031470	5k Ω (B)	1 C
VR03	1031470	5k Ω (B)	1 B
VR04	1031470	5k Ω (B)	1 A
VR05	1031440	1k Ω (B)	1 D
VR06	1031440	1k Ω (B)	1 C
VR07	1031440	1k Ω (B)	1 B
VR08	1031440	1k Ω (B)	1 A
C01, 02	0519103	0.47 μ F	1 D, 2 C
C03, 04	0519103	0.47 μ F	2 B, 2 A



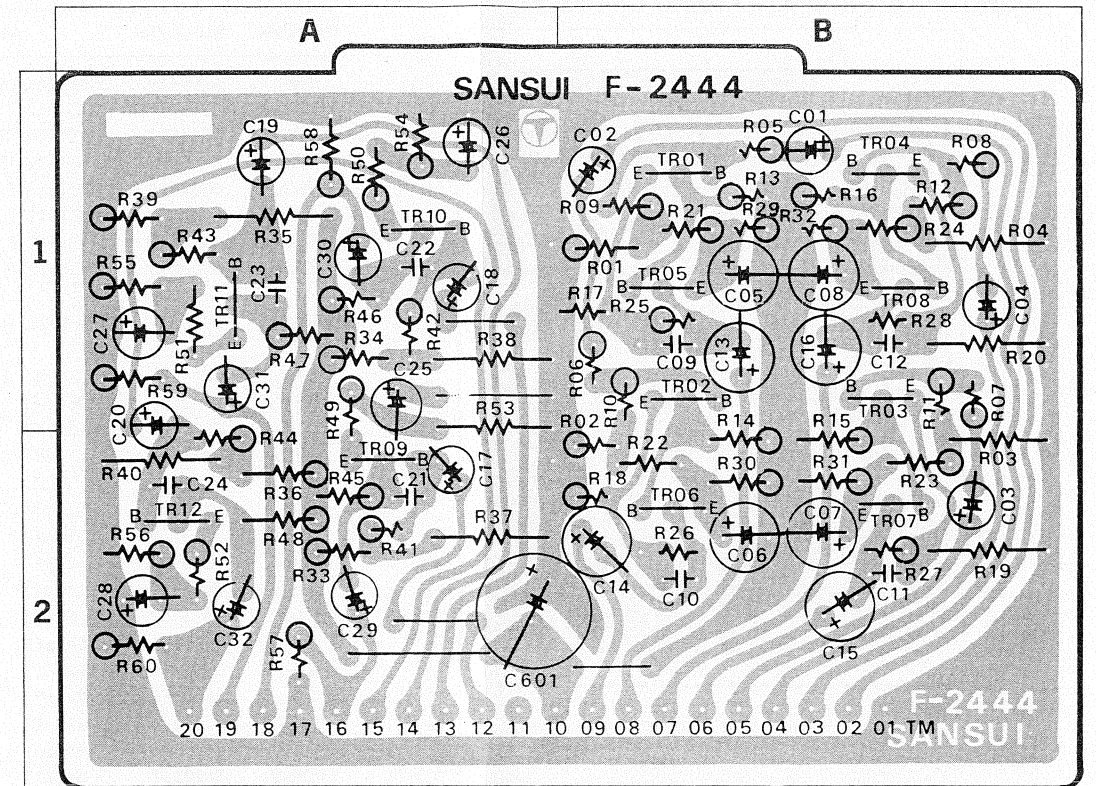
Parts No.	Stock No.	Description	Position
C05, 06	0661151	150pF } 50V C.C.	1,2D.12,D
C07, 08	0661151	150pF } 50V C.C.	1,2B.1,2A
C09, 10	0511221	220μF } 10V E.C.	1D.2C
C11, 12	0511221	220μF } 10V E.C.	2B.2A
C13, 14	0661100	10pF } 50V C.C.	1D.1C
C15, 16	0661100	10pF } 50V C.C.	1B.1A
C17, 18	0515330	33μF } 50V E.C.	1D.1C
C19, 20	0515330	33μF } 50V E.C.	1B.1A
C21, 22	0515101	100μF } 50V E.C.	1D.2C
C23, 24	0515101	100μF } 50V E.C.	2B.2A
C25, 26	0661330	33pF } 50V C.C.	1D.2C
C27, 28	0661330	33pF } 50V C.C.	2B.2A
C33, 34	0660680	68pF } 50V C.C.	2B.2A
C35, 36	0660680	68pF } 50V C.C.	2B.2A
R01, 02	0107104	100kΩ } 1/4W C.R.	2D.2C
R03, 04	0107104	100kΩ } 1/4W C.R.	2B.2A
R05, 06	0107222	2.2kΩ } 1/4W C.R.	2D.2C
R07, 08	0107222	2.2kΩ } 1/4W C.R.	2B.2A
R09, 10	0107104	100kΩ } 1/4W C.R.	1D.1C
R11, 12	0107104	100kΩ } 1/4W C.R.	1B.1A
R13, 14	0107223	22kΩ } 1/4W C.R.	1D.1C
R15, 16	0107223	22kΩ } 1/4W C.R.	1B.1A
R17, 18	0107683	68kΩ } 1/4W C.R.	1D.1C
R19, 20	0107683	68kΩ } 1/4W C.R.	1B.1A
R21, 22	0107103	10kΩ } 1/4W C.R.	1D.1C
R23, 24	0107103	10kΩ } 1/4W C.R.	1B.1A
R25, 26	0107100	10Ω } 1/4W C.R.	1D.1C
R27, 28	0107100	10Ω } 1/4W C.R.	1B.1A

Parts No.	Stock No.	Description	Position
R29, 30	0107100	10Ω } 1/4W C.R.	1,2D.1,2C
R31, 32	0107100	10Ω } 1/4W C.R.	1,2C.1A
R33, 34	0107152	1.5kΩ } 1/4W C.R.	2D.2C
R35, 36	0107152	1.5kΩ } 1/4W C.R.	2B.2A
R37, 38	0106222	2.2kΩ } 1/4W C.R.	2D.2C
R39, 40	0106222	2.2kΩ } 1/4W C.R.	2B.2A
R41, 42	0107682	6.8kΩ } 1/4W C.R.	2D.2C
R43, 44	0107682	6.8kΩ } 1/4W C.R.	2B.2A
R45, 46	0107104	100kΩ } 1/4W C.R.	1D.1C
R47, 48	0107104	100kΩ } 1/4W C.R.	1B.1A
R49, 50	0107223	22kΩ } 1/4W C.R.	1D.1C
R51, 52	0107223	22kΩ } 1/4W C.R.	1B.1A
R53, 54	0107182	1.8kΩ } 1/4W C.R.	2D.2C
R55, 56	0107182	1.8kΩ } 1/4W C.R.	2B.2A
R61, 62	0107472	4.7kΩ } 1/4W C.R.	1D.1C
R63, 64	0107472	4.7kΩ } 1/4W C.R.	1B.1A
R65, 66	0107390	39Ω } 1/4W C.R.	1D.1C
R67, 68	0107390	39Ω } 1/4W C.R.	1B.1A
R69, 70	0107472	4.7kΩ } 1/4W C.R.	1D.1C
R71, 72	0107472	4.7kΩ } 1/4W C.R.	1B.1A
R73, 74	0107122	1.2kΩ } 1/4W C.R.	1D.1C
R75, 76	0107122	1.2kΩ } 1/4W C.R.	1B.1A
R85, 86	0107221	220Ω } 1/4W C.R.	1D.1C
R87, 88	0104221	220Ω } 1/4W C.R.	1B.1A
R89, 90	0107221	220Ω } 1/4W C.R.	1D.1C
R91, 92	0107221	220Ω } 1/4W C.R.	1B.1A
R97, 98	0107479	4.7Ω } 1/4W C.R.	1D.1C
R99, 100	0107479	4.7Ω } 1/4W C.R.	1B.1A
R101, 102	0107479	4.7Ω } 1/4W C.R.	1D.1C
R103, 104	0107479	4.7Ω } 1/4W C.R.	1B.1A
R105, 106	0104100	10Ω } 1/4W C.R.	1D.1C
R107, 108	0104100	10Ω } 1/4W C.R.	1B.1A
R601, 602	0107151	150Ω } 1/4W C.R.	2D.2C
R603, 604	0107151	150Ω } 1/4W C.R.	2B.2A



Abbreviations	
C.R. : Carbon Resistor	BP.E.C.: Bi-Polar Electrolytic Capacitor
S.R. : Solid Resistor	C.C. : Ceramic Capacitor
Ce.R. : Cement Resistor	Mi.C. : Mica Capacitor
M.R. : Metallized Film Resistor	O.C. : Oil Capacitor
M.C. : Mylar Capacitor	P.C. : Polystyrene Capacitor
E.C. : Electrolytic Capacitor	T.C. : Tantalum Capacitor

4-4. F-2444 Tone Control Circuit Board (Stock No. 7560940 Complete Circuit Board F-2444) Conductor Side (QA-6000)



Parts List

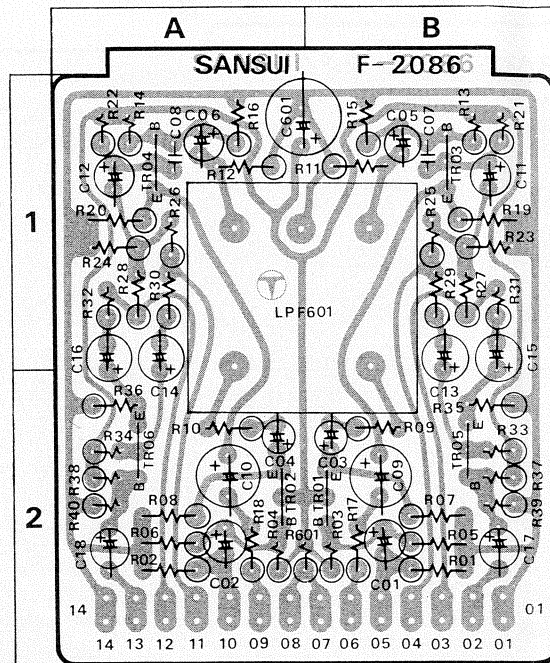
Parts No.	Stock No.	Description	Position
TR01, 02	0300410, 1	2SA726(F, G) } Transistor	1B
TR03, 04	0300410, 1	2SA726(F, G) } Transistor	1B
TR05, 06	0306070, 1	2SC1313(F, G) } Transistor	1B.2B
TR07, 08	0306070, 1	2SC1313(F, G) } Transistor	2B.1B
TR09, 10	0300410, 1	2SA726(F, G) } Transistor	2A.1A
TR11, 12	0300410, 1	2SA726(F, G) } Transistor	1A.2A
C01, 02	0573478	0.47μF } 25V T.C.	1B
C03, 04	0573478	0.47μF } 25V T.C.	2B.1B
C05, 06	0512470	47μF } 16V E.C.	1B.2B
C07, 08	0512470	47μF } 16V E.C.	2B.1B
C09, 10	0660100	10pF } 50V C.C.	1B.2B
C11, 12	0660100	10pF } 50V C.C.	2B.1B
C13, 14	0519471	4.7μF } 50V E.C. (BRN)	1B.2B
C15, 16	0519471	4.7μF } 50V E.C. (BRN)	2B.1B
C17, 18	0519101	1μF } 50V E.C. (BRN)	2A.1A
C19, 20	0519101	1μF } 50V E.C. (BRN)	1A.1,2A
C21, 22	0660220	22pF } 50V C.C.	2A.1A
C23, 24	0660220	22pF } 50V C.C.	1A.2A
C25, 26	0512330	33μF } 16V E.C.	1A
C27, 28	0512330	33μF } 16V E.C.	1A.2A
C29, 30	0519101	1μF } 50V E.C. (BRN)	2A.1A
C31, 32	0519101	1μF } 50V E.C. (BRN)	1A.2A
C601	0515470	47μF 50V E.C.	2A, B
R01, 02	0106473	47kΩ } 1/4W C.R. (E.L.R.)	1B.2B
R03, 04	0107473	47kΩ } 1/4W C.R.	2B.1B
R05, 06	0106122	1.2kΩ } 1/4W C.R. (E.L.R.)	1B
R07, 08	0106122	1.2kΩ } 1/4W C.R. (E.L.R.)	1B

Parts No.	Stock No.	Description	Position
R09, 10	0106394	390kΩ } 1/4W C.R.	1B
R11, 12	0106394	390kΩ } 1/4W C.R.	1B
R13, 14	0106224	220kΩ } 1/4W C.R.	1B.2B
R15, 16	0106224	220kΩ } 1/4W C.R.	2B.1B
R17, 18	0106331	330Ω } 1/4W C.R.	1AB.2B
R19, 20	0107331	330Ω } 1/4W C.R.	2B.1B
R21, 22	0106564	560kΩ } 1/4W C.R.	1B.2B
R23, 24	0106564	650kΩ } 1/4W C.R.	2B.1B
R25, 26	0106152	1.5kΩ } 1/4W C.R. (E.L.R.)	1B.2B
R27, 28	0106152	1.5kΩ } 1/4W C.R. (E.L.R.)	2B.1B
R29, 30	0106102	1kΩ } 1/4W C.R.	1B.2B
R31, 32	0106102	1kΩ } 1/4W C.R.	2B.1B
R33, 34	0106394	390kΩ } 1/4W C.R.	2A.1A
R35	0107394	390kΩ } 1/4W C.R.	1A
R36	0106394	390kΩ } 1/4W C.R. (E.L.R.)	2A
R37, 38	0107333	33kΩ } 1/4W C.R.	2A.1A
R39	0106333	33kΩ } 1/4W C.R. (E.L.R.)	1A
R40	0107333	33kΩ } 1/4W C.R.	2A
R41, 42	0106394	390kΩ } 1/4W C.R.	2A.1A
R43, 44	0106394	390kΩ } 1/4W C.R.	1A.1,2A
R45, 46	0106183	18kΩ } 1/4W C.R. (E.L.R.)	2A.1A
R47, 48	0106183	18kΩ } 1/4W C.R. (E.L.R.)	1A.2A
R49, 50	0106151	150Ω } 1/4W C.R.	1A
R51, 52	0106151	150Ω } 1/4W C.R.	1A.2A
R53	0107102	1kΩ } 1/4W C.R.	1A
R54	0106102	1kΩ } 1/4W C.R.	1A
R55, 56	0106102	1kΩ } 1/4W C.R. (E.L.R.)	1A.2A
R57, 58	0106104	100kΩ } 1/4W C.R.	2A.1A
R59, 60	0106104	100kΩ } 1/4W C.R.	1A.2A

4-5. F-2086 CD-4 Main Circuit Board

(Stock No. 7650250 Complete Circuit Board F-2086)

Conductor Side (QA-5000, QA-6000)



Parts List

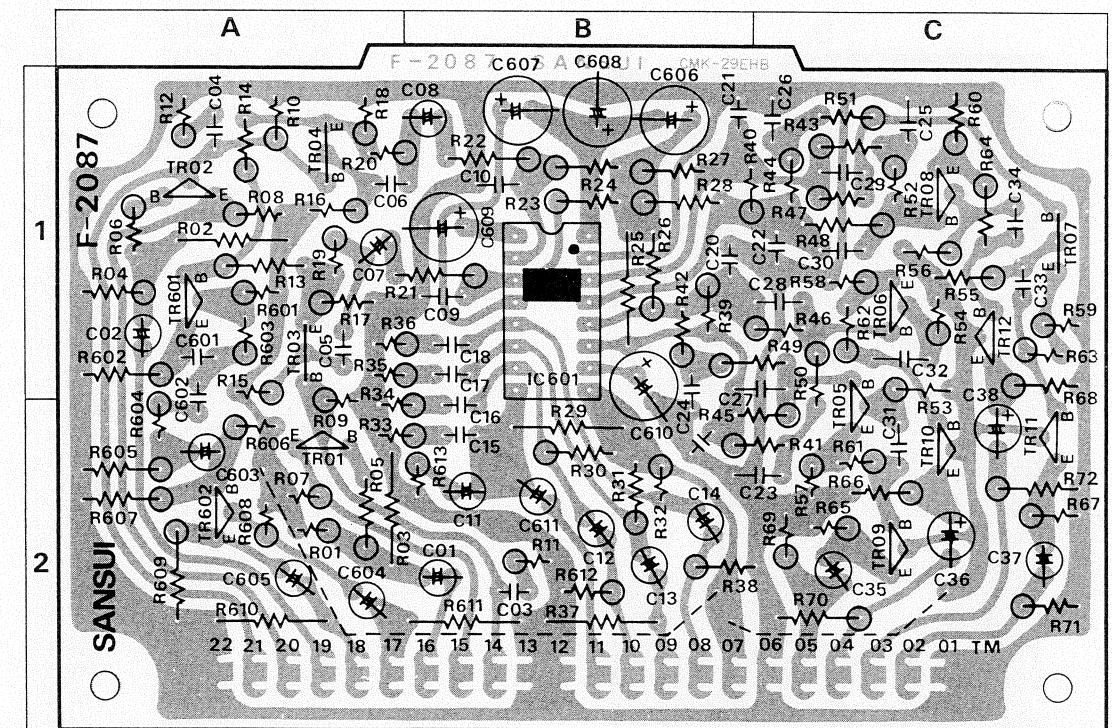
Parts No.	Stock No.	Description	Position
TR01, 02	0306090, 1	2SC1312 (F, G)	Transistor
TR03, 04	0306090, 1	2SC1312 (F, G)	
TR05, 06	0306090, 1	2SC1312 (F, G)	
LPF601	0910230	VSL-200-3 Low Pass Filter	
C01, 02	0515109	1μF 50V E.C.	
C03, 04	0513479	4.7μF 25V E.C.	2B. 2A
C05, 06	0515109	1μF 50V E.C.	2B. 2A
C07, 08	0660330	33pF 50V C.C.	1B. 1A
C09, 10	0510101	100μF 6.3V E.C.	2B. 2A
C11, 12	0519105	2.2μF	1B. 1A
C13, 14	0519102	3.3μF	50V E.C. (BRN)
C15, 16	0519102	3.3μF	1,2B, 1, 2A
C17, 18	0515109	1μF 50V E.C.	2B. 2A
C601	0513101	100μF 25V E.C.	1A, B
R01, 02	0106474	470kΩ	2B. 2A
R03, 04	0106274	270kΩ	2B. 2A
R05, 06	0106274	270kΩ	2B. 2A
R07, 08	0106332	3.3kΩ	2B. 2A
R09, 10	0106472	4.7kΩ	2B. 2A
R11, 12	0106472	4.7kΩ	1B. 1A
R13, 14	0106274	270kΩ	1B. 1A
R15, 16	0106823	82kΩ	1B. 1A
R17, 18	0106271	270Ω	2B. 2A
R19, 20	0106392	3.9kΩ	1B. 1A
R21, 22	0106822	8.2kΩ	1B. 1A
R23, 24	0106124	120kΩ	1B. 1A
R25, 26	0106123	12kΩ	1B. 1A
R27, 28	0106103	10kΩ	1B. 1A
R29, 30	0106103	10kΩ	1B. 1A
R31, 32	0106103	10kΩ	1B. 1A
R33, 34	0106102	1kΩ	2B. 2A
R35, 36	0106102	1kΩ	2B. 2A
R37, 38	0106394	390kΩ	2B. 2A
R39, 40	0106274	270kΩ	2B. 2A
R601	0106151	150Ω	2A, B

4-6. F-2087 QS Matrix Circuit Board (Stock No. 7650260 Complete Circuit Board F-2087)

Parts List (QA-5000, QA-6000)

Parts No.	Stock No.	Description	Position
TR01, 02	0300410, 1	2SA726 (F, G)	2A. 1A
TR03, 04	0306090, 1	2SC1312 (F, G)	1A
TR05, 06	0306091	2SC1312 (G)	1,2C. 1C
TR07, 08	0306091	2SC1312 (G)	1C
TR09, 10	0306090, 1	2SC1312 (F, G)	2C
TR11, 12	0306090, 1	2SC1312 (F, G)	2C. 1C
TR601	0306090, 1	2SC1312 (F, G)	1A
TR602	0306090, 1	2SC1312 (F, G)	2A
IC601	0360210	HA-1328 IC	1B
C01, 02	0515339	3.3μF 50V E.C.	2B. 1A
C03, 04	0600686	0.0068μF	50V M.C.
C05, 06	0600107	0.01μF	1A
C07, 08	0519101	1μF 50V E.C.	1A. 1B
C09	0660151	150pF	1B
C10	0660151	150pF	50V C.C.
C11	0513100	10μF	2B
C12	0513100	10μF	2B
C13	0513100	10μF	25V E.C.
C14	0513100	10μF	2B
C15	0600276	0.0027μF	2B
C16	0600276	0.0027μF	50V M.C.
C17	0600276	0.0027μF	1B
C18	0600276	0.0027μF	1B
C19, 20	0620561	560pF	50V P.C.
C21, 22	0620561	560pF	1B. 1C
C23, 24	0600337	0.033μF	2B, C. 1, 2B
C25, 26	0600337	0.033μF	1C
C27, 28	0600107	0.01μF	50V M.C.
C29, 30	0600107	0.01μF	1B, C. 1C
C31, 32	0600397	0.039μF	1C
C33	0620561	560pF	50V P.C.
C34	0600276	0.0027μF	50V M.C.
C35, 36	0515339	3.3μF	50V E.C.
C37, 38	0515339	3.3μF	50V E.C.
C601	0600396	0.0039μF	1C
C602	0600107	0.01μF	50V M.C.
C603	0515339	3.3μF	1, 2A
C604	0519102	3.3μF	2A
C605	0519102	3.3μF	50V E.C.
C606	0511101	100μF	2A
C607	0511101	100μF	1B
C608	0511101	100μF	10V E.C.
C609	0511470	47μF	1B
C610	0511470	47μF	1A
C611	0519105	2.2μF	50V E.C. (BRN)
R01	0106473	47kΩ	1/4W C.R. (E.L.R)
R02	0107473	47kΩ	1/4W C.R.
R03	0107104	100kΩ	2A
R04	0106104	100kΩ	1A
R05, 06	0106102	1kΩ	2A. 1A
R07, 08	0106222	2.2kΩ	2A. 1A
R09, 10	0106222	2.2kΩ	1, 2A. 1A
R11, 12	0106332	3.3kΩ	2B. 1A
R13, 14	0106104	100kΩ	1A
R15, 16	0106222	2.2kΩ	1A
R17, 18	0106222	2.2kΩ	1A
R19, 20	0106223	22kΩ	1A
R21, 22	0106683	68kΩ	1A, B. 1B

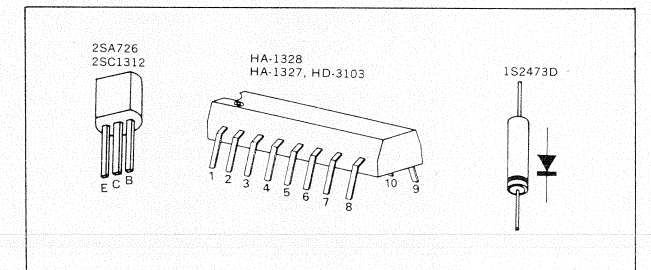
Conductor Side



Parts List

Parts No.	Stock No.	Description	Position
R23	0106273	27kΩ	1/4W C.R. (E.L.R)
R24	0106273	27kΩ	1B
R25	0107223	22kΩ	1/4W C.R.
R26	0106223	22kΩ	1B
R27	0106223	22kΩ	1/4W C.R. (E.L.R)
R28	0106223	22kΩ	1B
R29	0107153	15kΩ	1/4W C.R.
R30	0106153	15kΩ	2B
R31	0106153	15kΩ	2B
R32	0106153	15kΩ	2B
R33	0106101	100Ω	1/4W C.R. (E.L.R)
R34	0106101	100Ω	2A, B
R35	0106101	100Ω	1, 2A B
R36	0106101	100Ω	1A
R37	0107152	1.5kΩ	1/4W C.R.
R38	0106152	1.5kΩ	2B
R39, 40	0106104	100kΩ	1B. 1B, C
R41, 42	0106223	22kΩ	2B, C. 1B
R43, 44	0106273	27kΩ	1C
R45, 46	0106224	220kΩ	2B, C. 1B, C
R47, 48	0106224	220kΩ	1C
R49, 50	0106224	220kΩ	1/4W C.R. (E.L.R)
R51, 52	0106224	220kΩ	1C
R53, 54	0106272	2.7kΩ	1C
R55, 56	0106272	2.7kΩ	1C
R57, 58	0106272	2.7kΩ	2B, C. 1C
R59, 60	0106272	2.7kΩ	1C
R61, 62	0106333	33kΩ	2C. 1C
R63, 64	0106333	33kΩ	1C
R65, 66	0106472	4.7kΩ	2C
R67, 68	0106472	4.7kΩ	2C. 1C
R69, 70	0106104	100kΩ	2C
R71, 72	0106104	100kΩ	2C

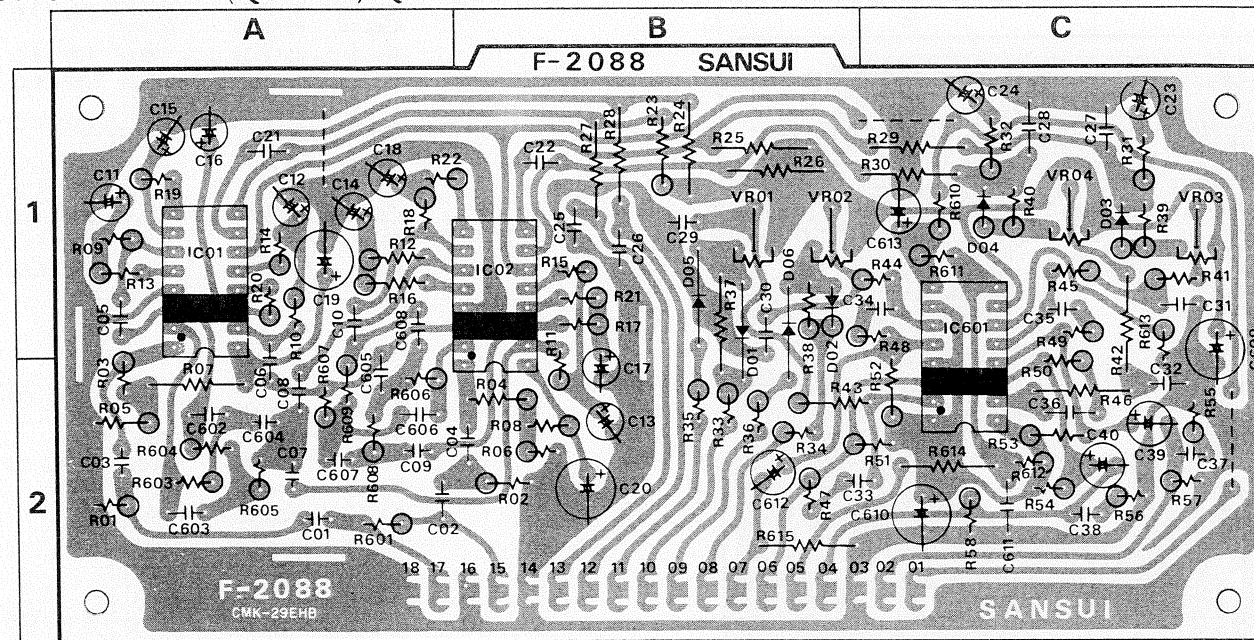
Parts No.	Stock No.	Description	Position
R601	0106152	1.5kΩ	1A
R602	0106152	1.5kΩ	1A
R603	0106682	6.8kΩ	1/4W C.R. (E.L.R)
R604	0106683	68kΩ	1, 2A
R605	0106183	18kΩ	2A
R606	0106224	220kΩ	2A
R607	0106154	150kΩ	2A
R608	0106182	1.8kΩ	2A
R609	0106153	15kΩ	2A
R610	0107223	22kΩ	2A
R611	0107822	8.2kΩ	1/4W C.R.
R612	0106104	100kΩ	2B
R613	0106152	1.5kΩ	1/4W C.R. (E.L.R)



Abbreviations

C.R. : Carbon Resistor	BP.E.C. : Bi-Polar Electrolytic Capacitor
S.R. : Solid Resistor	C.C. : Ceramic capacitor
Ce.R. : Cement Resistor	M.C. : Mica Capacitor
M.R. : Metalized Film Resistor	O.C. : Oil Capacitor
M.C. : Mylar Capacitor	P.C. : Polystyrene Capacitor
E.C. : Electrolytic Capacitor	T.C. : Tantalum Capacitor

4-7. F-2088 QS Phase Control Circuit Board (Stock No. 7650270 Complete Circuit Board F-2088) Conductor Side (QA-5000, QA-6000)

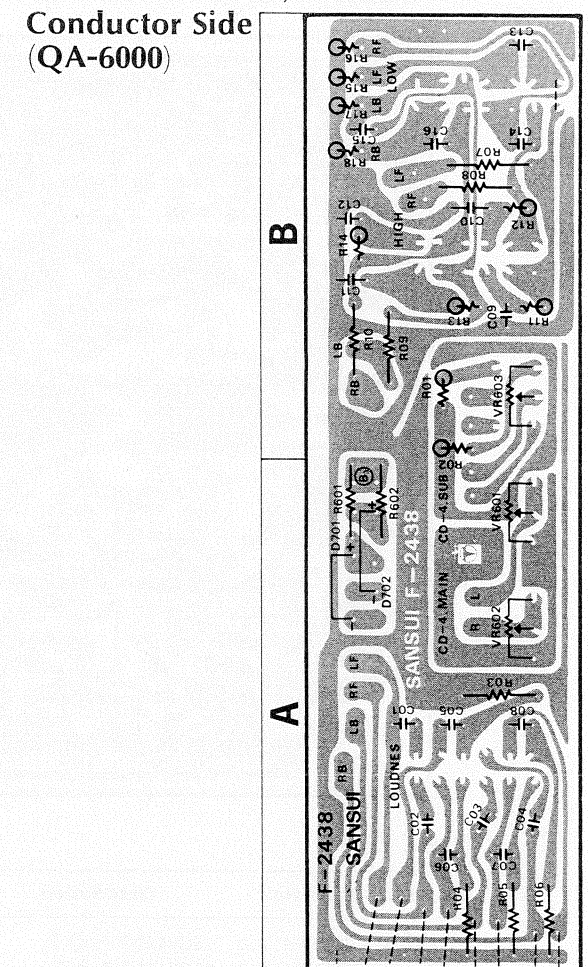


Parts List

Parts No.	Stock No.	Description	Position	Parts No.	Stock No.	Description	Position
IC01	0360090-2	HA1327	1 A	C23	0515109	1 μ F	1 C
IC02	0360090-2	HA1327	1 A	C24	0515109	1 μ F	1 C
IC601	3600100	HD3103	1, 2 C	C25	0600567	0.056 μ F	1 B
D01	0311160	1S2473D	1, 2 B	C26	0600567	0.056 μ F	1 B
D02	0311160	1S2473D	1 B	C27	0600567	0.056 μ F	1 C
D03	0311160	1S2473D	1 C	C28	0600567	0.056 μ F	1 C
D04	0311160	1S2473D	1 C	C29	0600107	0.01 μ F	1 B
D05	0311160	1S2473D	1 B	C30	0600107	0.01 μ F	1 B
D06	0311160	1S2473D	1, 2 B	C31	0600337	0.033 μ F	1 C
VR01	1035490	1M Ω (B)	1 B	C32	0600337	0.033 μ F	2 B
VR02	1035490	1M Ω (B)	1 B	C33	0600226	0.0022 μ F	2 B C
VR03	1035490	1M Ω (B)	1 C	C34	0600226	0.0022 μ F	1 C
VR04	1035490	1M Ω (B)	1 C	C35	0600226	0.0022 μ F	1 C
C01	0600106	0.001 μ F	2 A	C36	0600226	0.0022 μ F	2 C
C02	0600106	0.001 μ F	2 A	C37	0600187	0.018 μ F	2 C
C03	0620331	330pF	2 A	C38	0600187	0.018 μ F	2 C
C04	0620331	330pF	2 B	C39	0519105	2.2 μ F	2 C
C05	0600396	0.0039 μ F	1 A	C40	0519105	2.2 μ F	2 C
C06	0600396	0.0039 μ F	2 A	C601	0660101	100pF	2 A
C07	0620681	680pF	2 A	C602	0600337	0.033 μ F	2 A
C08	0620681	680pF	2 A	C603	0600337	0.033 μ F	2 A
C09	0620681	680pF	2 A	C604	0620471	470pF	2 A
C10	0620681	680pF	1 A	C605	0600687	0.068 μ F	2 A
C11	0513479	4.7 μ F	1 A	C606	0600687	0.068 μ F	2 A
C12	0513479	4.7 μ F	1 A	C607	0620471	470pF	2 A
C13	0513479	4.7 μ F	2 B	C608	0620471	470pF	1 A
C14	0513479	4.7 μ F	1 A	C609	0513330	33 μ F	1, 2 C
C15	0513479	4.7 μ F	1 A	C610	0513330	33 μ F	2 C
C16	0513479	4.7 μ F	1 A	C611	0660151	150pF	2 C
C17	0513479	4.7 μ F	1, 2 B	C612	0519105	2.2 μ F	1 B
C18	0513479	4.7 μ F	1 A	C613	0513100	10 μ F	1 C
C19	0513330	33 μ F	1 A	R01	0106224	220k Ω	2 A
C20	0513330	33 μ F	2 B	R02	0106224	220k Ω	2 B
C21	0600687	0.068 μ F	1 A	R03	0106684	680k Ω	1, 2 A
C22	0600687	0.068 μ F	1 B	R04	0106684	680k Ω	2 B
				R05	0106334	330k Ω	2 A
				R06	0106334	330k Ω	2 B
				R07	0107684	680k Ω	2 A

Parts No.	Stock No.	Description	Position
R08	0106684	680k Ω	2 B
R09	0106274	270k Ω	1 A
R10	0106274	270k Ω	1 A
R11	0106334	330k Ω	1, 2 B
R12	0106334	330k Ω	1 A
R13	0106124	120k Ω	1 A
R14	0106124	120k Ω	1 A
R15	0106124	120k Ω	1 B
R16	0106124	120k Ω	1 A
R17	0106334	330k Ω	1 B
R18	0106334	330k Ω	1 A
R19	0106394	390k Ω	1 A
R20	0106394	390k Ω	1 A
R21	0106124	120k Ω	1 B
R22	0106124	120k Ω	1 A, B
R23	0106124	120k Ω	1 B
R24	0107124	120k Ω	1 B
R25	0107124	120k Ω	1 B
R26	0107124	120k Ω	1 B
R27	0107563	56k Ω	1 B
R28	0107563	56k Ω	1 B
R29	0107563	56k Ω	1 C
R30	0107563	56k Ω	1 C
R31	0106563	56k Ω	1 C
R32	0106563	56k Ω	1 C
R33	0106474	470k Ω	2 B
R34	0106474	470k Ω	2 B
R35	0106564	560k Ω	2 B
R36	0106564	560k Ω	2 B
R37	0113225	2.2M Ω	1 B
R38	0113225	2.2M Ω	1 B
R39	0113155	1.5M Ω	1 C
R40	0113155	1.5M Ω	1 C
R41	0106334	330k Ω	1 C
R42	0107334	330k Ω	1, 2 C
R43	0106105	1M Ω	2 B
R44	0106105	1M Ω	1 B, C
R45	0106105	1M Ω	1 C
R46	0107105	1M Ω	2 C
R47	0106104	100k Ω	2 B
R48	0106104	100k Ω	1 B, C
R49	0106104	100k Ω	1 C
R50	0106104	100k Ω	2 C
R51	0106123	12k Ω	2 B, C
R52	0106123	12k Ω	2 C
R53	0106153	15k Ω	2 C
R54	0106153	15k Ω	2 C
R55	0106561	560 Ω	2 C
R56	0106561	560 Ω	2 C
R57	0106333	33k Ω	2 C
R58	0106333	33k Ω	2 C
R601	0106224	220k Ω	2 A
R603	0106682	6.8k Ω	2 A
R604	0106682	6.8k Ω	2 A
R605	0106333	33k Ω	2 A
R606	0106682	6.8k Ω	2 A
R607	0106682	6.8k Ω	2 A
R608	0106683	68k Ω	2 A
R609	0106683	68k Ω	2 A
R610	0106472	4.7k Ω	1 C
R611	0106272	2.7k Ω	1 C
R612	0106223	22k Ω	2 C
R613	0106103	10k Ω	1, 2 C
R614	0107272	2.7k Ω	2 C
R615	0107104	100k Ω	2 B

4-8. F-2438 Filter & Volume Circuit Board (Stock No. 7592290 Complete Circuit Board F-2438) Conductor Side (QA-6000)

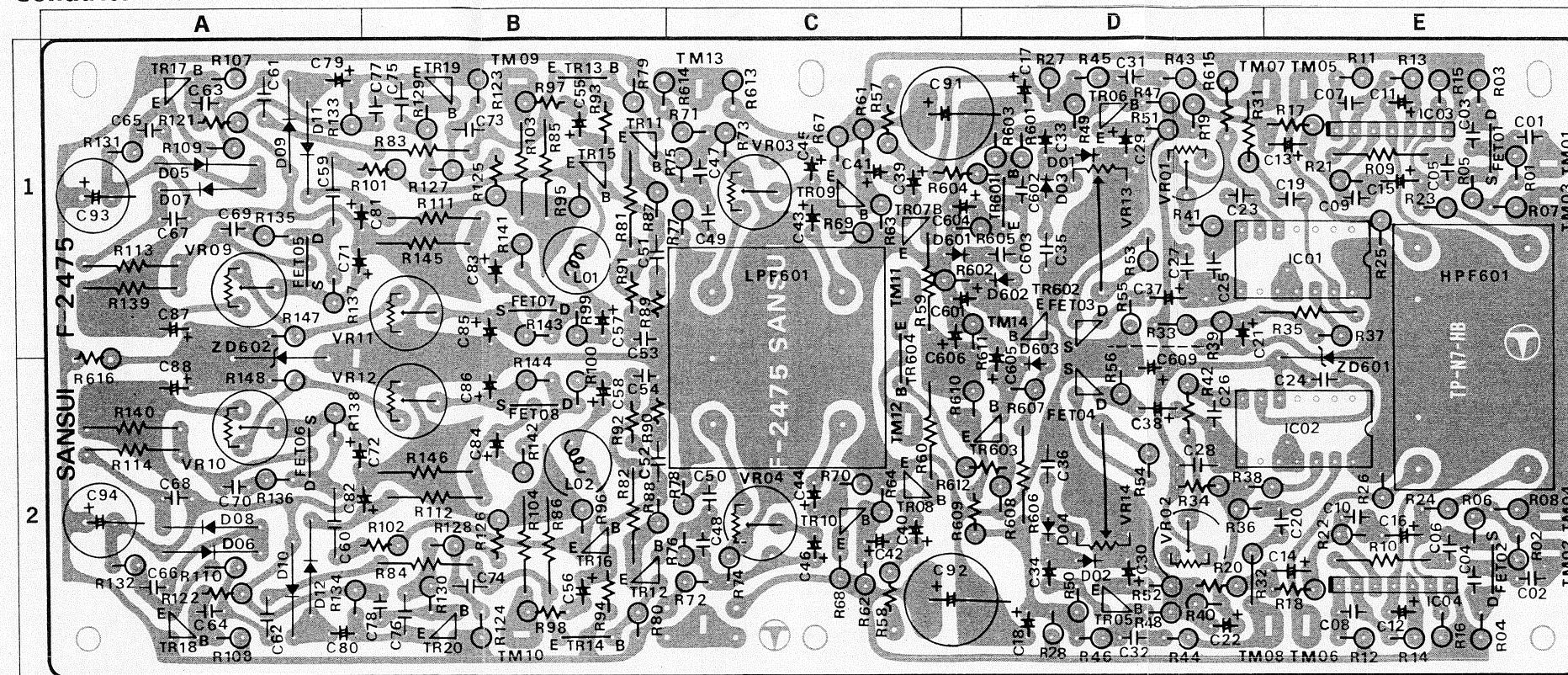


Parts List

Parts No.	Stock No.	Description	Position
VR05-08	1060420, 1	250k Ω (B) \times 4	Master VR
VR601	1005150, 1	50k Ω (C) (16 ϕ)	A
VR602	1005150, 1	50k Ω (C) (16 ϕ)	A
VR603	1015100	10k Ω (B) \times 2 (16 ϕ)	B
	1170370	SX-15-18	Lever Switch
	1170370	SX-15-18	
	1170370	SX-15-18	
	1170370	SX-15-18	
C01, 02	0620151	150pF	A
C03, 04	0620151	150pF	A
C05, 06	0600182	0.018 μ F	A
C07, 08	0600182	0.018 μ F	A
C09, 10	0601686	0.0068 μ F	B
C11, 12	0601686	0.0068 μ F	B
C13, 14	0600567	0.056 μ F	B
C15, 16	0600567	0.056 μ F	B
R01, 02	0106102	1k Ω	1/4 W C.R. (E.L.R.) B
R03, 04	0107333	33k Ω	A
R05, 06	0107333	33k Ω	A
R07, 08	0107332	3.3k Ω	1/4 W C.R. B
R09, 10	0107332	3.3k Ω	B
R11, 12	0106824	820k Ω	1/4 W C.R. (E.L.R.) B
R13, 14	0106824	820k Ω	B
R601, 602	0107221	220 Ω	1/4 W C.R. A
R15, 16	0106104	100k Ω	B
R17, 18	0106104	100k Ω	1/4 W C.R. (E.L.R.) B

4-9. F-2475 CD-4 Sub-Channel Unit Circuit Board (Stock No. 7650370 Complete Circuit Board F-2475A . . . QA-6000) Conductor Side (Stock No. 7650390 Complete Circuit Board F-2475B . . . QA-5000)

The differences between QA-5000 and QA-6000 are values of two resistors, ※ 97, ※ 98 only.



Parts List

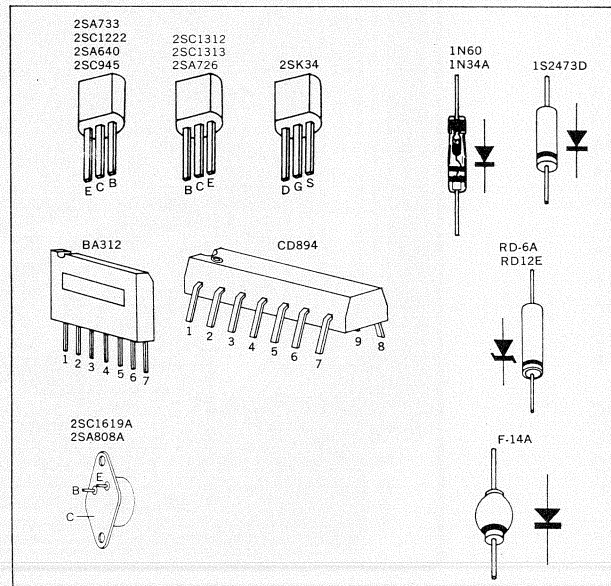
Parts No.	Stock No.	Description	Position
TR05, 06	0305951, 2, 3	2SC945 (Q, P, K)	2 D, 1 D
TR07, 08	0305951, 2, 3	2SC945 (Q, P, K)	1 D, 2 C
TR09, 10	0300301, 3, 5	2SA640 (M, K, L)	1 D, 2 C
	0300410, 1	2SA726 (F, G)	
TR11, 12	0306090, 1	2SC1312R (F, G)	1 B, 2 B
	0306011, 2	2SC1222 (E, F)	
TR13, 14	0306090, 1	2SC1312R (F, G)	1 B, 2 B
	0306011, 2	2SC1222 (E, F)	
TR15, 16	0306090, 1	2SC1312R (F, G)	1 B, 2 B
	0306011, 2	2SC1222R (E, F)	
TR17, 18	0305951, 2, 3	2SC945 (Q, P, K)	1 A, 2 A
TR19, 20	0305951, 2, 3	2SC945 (Q, P, K)	1 B, 2 B
TR601	0305951, 2, 3	2SC945 (Q, P, K)	1 D
TR602	0305951, 2, 3	2SC945 (Q, P, K)	1 D
TR603	0300510, 1	2SA733 (Q, P)	2 D
TR604	0305951, 2, 3	2SC945 (Q, P, K)	1, 2 C
FET01, 02	0370150, 1	2SK34 (B, C)	1 E, 2 E
FET03, 04	0370150	2SK34 (B)	1 D, 2 D
FET05, 06	0370151	2SK34 (C)	1 A, 2 A
FET07, 08	0370151	2SK34 (C)	1 B, 2 B
IC01, 02	0360110	CD894A	1 D, 2 D
IC03, 04	0360200	BA312S	1 E, 2 E
D01, 02	0311160	IS2473D	1 D, 2 D

Parts No.	Stock No.	Description	Position
D03, 04	0311160	IS2473D	1 D, 2 D
D05, 06	0310400	IN34A	1 A, 2 A
D07, 08	0310400	IN34A	1 A, 2 A
D09, 10	0310400	IN34A	1 A, 2 A
D11, 12	0310400	IN-34A	1 A, 2 A
D601, 602	0310330	IN-60	1 C D, 2 D
D603	0310330	IN-60	2 D
ZD601	0316290	RD-12E (B)	1, 2 E
ZD602	0315530	RD-6A (K)	1, 2 A
VR01, 02	1035100	3.3kΩ (B)	1 D, 2 D
VR03, 04	1035110	4.7kΩ (B)	1 C, 2 C
VR09, 10	1035150	22kΩ (B)	1 A, 2 A
VR11, 12	1035150	22kΩ (B)	1 B, 2 B
VR13, 14	1032520, 1	100kΩ (B)	1 D, 2 B
L01, 02	4900220	100mH	1 D, 2 D
HPF601	0910250	High Pass Filter	1, 2 E
LPF601	0910240	Low Pass Filter	1, 2 C
C01, 02	0601106	0.001μF 50V M.C.	1 E, 2 E
C03, 04	0660220	22pF 50V C.C.	1 E, 2 E
C05, 06	0600226	0.0022μF 50V M.C.	1 E, 2 E
C07, 08	0660100	10pF 50V C.C.	1 E, 2 E
C09, 10	0660151	150pF 50V C.C.	1 E, 2 E
C11, 12	0515339	3.3μF 50V E.C.	1 E, 2 E
C13, 14	0515109	1μF 50V E.C.	1 E, 2 E
C15, 16	0515109	1μF 50V E.C.	1 E, 2 E
C17, 18	0512330	33μF 16V E.C.	1 D, 2 D
C19, 20	0601276	0.0027μF 50V M.C.	1 E, 2 E
C21, 22	0515109	1μF 50V E.C.	1 D, 2 D

Parts No.	Stock No.	Description	Position
C23, 24	0600276	0.0027μF 50V M.C.	1 D, 2 E
C25, 26	0657102	0.001μF 50V C.C.	1 D, 2 D
C27, 28	0600276	0.0027μF 50V M.C.	1 D, 2 D
C29, 30	0511330	33μF 10V E.C.	1 D, 2 D
C31, 32	0620681	680pF 50V P.C.	1 D, 2 D
C33, 34	0515109	1μF 50V E.C.	1 D, 2 D
C35, 36	0601157	0.015μF 50V M.C.	1 D, 2 D
C37, 38	0512330	33μF 16V E.C.	1 D, 2 D
C39, 40	0519102	3.3μF 50V E.C.	1 C, 2 C
C41, 42	0519102	3.3μF 50V E.C.	1 C, 2 C
C43, 44	0513479	4.7μF 25V E.C.	1 C, 2 C
C45, 46	0515109	1μF 50V E.C.	1 C, 2 C
C47, 48	0620331	330pF 50V P.C.	1 C, 2 C
C49, 50	0600476	0.0047μF 50V M.C.	1 C, 2 C
C51, 52	0600827	0.082μF 50V M.C.	1 B, 2 B
C53, 54	0620331	330pF 50V P.C.	1 B, 2 B
C55, 56	0515109	1μF 50V E.C.	1 B, 2 B
C57, 58	0573688	0.68μF 25V T.C.	1 B, 2 B
C59, 60	0600158	0.15μF 50V M.C.	1 A, 2 A
C61, 62	0600686	0.0068μF 50V M.C.	1 A, 2 A
C63, 64	0600686	0.0068μF 50V M.C.	1 A, 2 A
C65, 66	0600226	0.0022μF 50V M.C.	1 A, 2 A
C67, 68	0601227	0.022μF 50V M.C.	1 A, 2 A
C69, 70	0601476	0.0047μF 50V M.C.	1 A, 2 A
C71, 72	0512100	10μF 16V E.C.	1 A B, 2 A
C73, 74	0600127	0.012μF 50V M.C.	1 B, 2 B
C75, 76	0600157	0.015μF 50V M.C.	1 B, 2 B
C77, 78	0600157	0.015μF 50V M.C.	1 B, 2 B
C79, 80	0573338	0.33μF 25V T.C.	1 A, 2 A

Parts No.	Stock No.	Description	Position
C81, 82	0573338	0.33μF 25V T.C.	1 A B, 2 A B
C83, 84	0573338	0.33μF 25V T.C.	1 B, 2 B
C85, 86	0511330	33μF 10V E.C.	1 B, 2 B
C87, 88	0510470	47μF 6.3V E.C.	1 A, 2 A
C91, 92	0513221	220μF 25V E.C.	1 C D, 2 C D
C93, 94	0513101	100μF 25V E.C.	1 A, 2 A
C601	0573108	0.1μF 25V T.C.	1 C, D
C602	0660221	220pF 50V C.C.	1 D
C603	0600476	0.0047μF 50V M.C.	1 D
C604	0515109	1μF 50V E.C.	1 C, D
C605	0512330	33μF 16V E.C.	1, 2 D
C606	0515109	1μF 50V E.C.	1 D
R01, 02	0106105	1MΩ	1 E, 2 E
R03, 04	0106102	1kΩ	1 E, 2 E
R05, 06	0106221	220Ω	1 E, 2 E
R07, 08	0106123	12kΩ	1 E, 2 E
R09, 10	0107479	4.7Ω	1 E, 2 E
R11, 12	0106684	680kΩ	1 E, 2 E
R13, 14	0106562	5.6kΩ	1 E, 2 E
R15, 16	0106103	10kΩ	1 E, 2 E
R17, 18	0106332	3.3kΩ	1 E, 2 E
R19, 20	0106470	47Ω	1 D, 2 D
R21, 22	0106223	22kΩ	1 E, 2 E
R23, 24	0106332	3.3kΩ	1 E, 2 E
R25, 26	0106562	5.6kΩ	1 E, 2 E
R27, 28	0106152	1.5kΩ	1 D, 2 D
R31, 32	0106272	2.7kΩ	1 D, 2 D
R33, 34	0106103	10kΩ	1 D, 2 D
R35	0107472	4.7kΩ	1 D, E
R36	0106472	4.7kΩ	2 D
R37, 38	0106472	4.7kΩ	1 E, 2 D
R39, 40	0106103	10kΩ	1 D, 2 D
R41, 42	0106222	2.2kΩ	1 D, 2 D
R43, 44	0106152	1.5kΩ	1 D, 2 D
R45, 46	0106154	150kΩ	1 D, 2 D
R47, 48	0106274	270kΩ	1 D, 2 D
R49, 50	0106102	1kΩ	1 D, 2 D
R51, 52	0106222	2.2kΩ	1 D, 2 D
R53, 54	0106683	68kΩ	1 D, 2 D
R55, 56	0106104	100kΩ	1 D, 2 D
R57, 58	0106562	5.6kΩ	1 D, 2 D
R59, 60	0107102	1kΩ	1/4 W C.R.
R61, 62	0106333	33kΩ	1/4 W C.R.
R63, 64	0106474	470kΩ	1/4 W C.R.
R67, 68	0106221	220Ω	1 C, 2 C
R69, 70	0106472	4.7kΩ	1 C, 2 C
R71, 72	0106474	470kΩ	1/4 W C.R. (E.L.R.)
R73, 74	0106473	47kΩ	1 C, 2 C
R75, 76	0106333	33kΩ	1 C, 2 C
R77, 78	0106472	4.7kΩ	1 C, 2 C
R79, 80	0106273	27kΩ	1 B, 2 B
R81, 82	0107272	2.7kΩ	1 B, 2 B
R83, 84	0107479	4.7Ω	1 B, 2 B
R85, 86	0107103	10kΩ	1 B, 2 B
R87, 88	0106473	47kΩ	1 B, 2 B
R89, 90	0106103	10kΩ	1 B, 2 B
R91, 92	0106223	22kΩ	1/4 W C.R. (E.L.R.)
R93, 94	0106103	10kΩ	1 B, 2 B
R95, 96	0106392	3.9kΩ	1 B, 2 B
※ R97, 98	0106223	22kΩ 1/4 W C.R. (QA-6000)	1 B, 2 B
※ R97, 98	0106272	2.7kΩ 1/4 W C.R. (QA-5000)	1 B, 2 B
R99, 100	0106271	270Ω	1 B, 2 B
R101, 102	0106561	560Ω	1 A B, 2 A B
R103, 104	0107333	33kΩ	1 B, 2 B

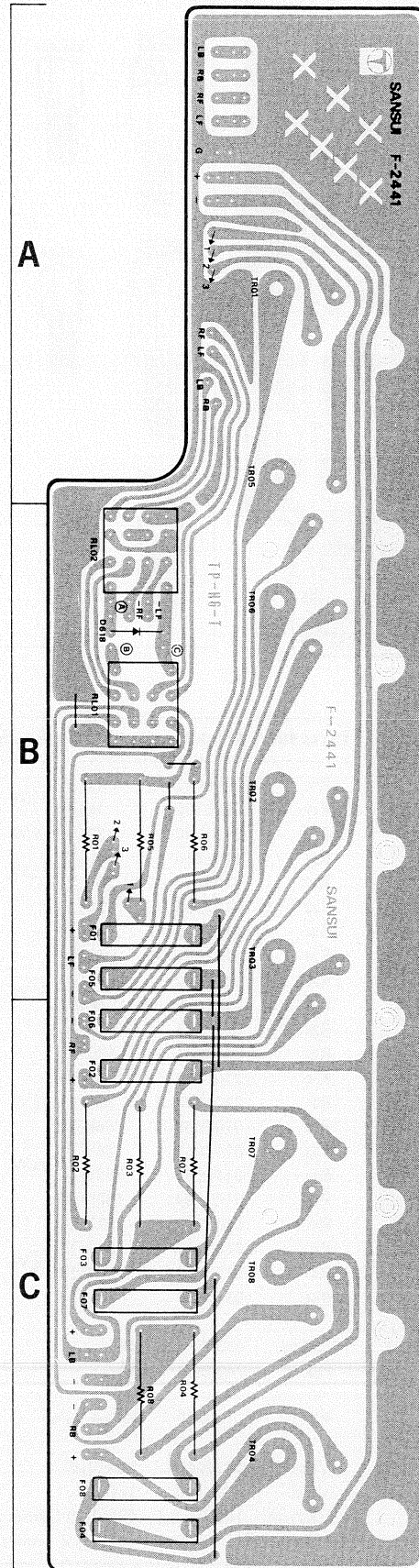
Parts No.	Stock No.	Description	Position
R107, 108	0106473	47k Ω	1 A. 2 A
R109, 110	0106823	82k Ω	1 A. 2 A
R111, 112	0107473	47k Ω	1 B. 2 A
R113, 114	0107563	56k Ω	1 A. 2 A
R121, 122	0106473	47k Ω	1 A. 2 A
R123, 124	0106473	47k Ω	1 B. 2 B
R125, 126	0106473	47k Ω	1 B. 2 B
R127, 128	0106103	10k Ω	1 B. 2 B
R129, 130	0106103	10k Ω	1 B. 2 B
R131, 132	0106682	6.8k Ω	1 A. 2 A
R133, 134	0106682	6.8k Ω	1 A. 2 A
R135, 136	0106104	100k Ω	1 A. 2 A
R137, 138	0106183	18k Ω	1 A. 2 A
R139, 140	0107474	470k Ω	1 A. 2 A
R141, 142	0106104	100k Ω	1 B. 2 B
R143, 144	0106183	18k Ω	1 B. 2 B
R145, 146	0107394	390k Ω	1 B. 2 A
R147, 148	0106102	1k Ω	1 A. 2 A
R601	0106272	2.7k Ω	1 D
R602	0106472	4.7k Ω	1 C, D
R603	0106103	10k Ω	1 D
R604	0106471	470 Ω	1 C, D
R605	0106272	2.7k Ω	1 D
R606	0107562	5.6k Ω	2 D
R607	0106103	10k Ω	2 D
R608	0106102	1k Ω	2 D
R609	0109103	10k Ω	2 D
R610	0106392	3.9k Ω	2 D
R611	0106821	820 Ω	1 D
R612	0106102	1k Ω	2 C, D
R613	0106390	39 Ω	1 C
R614	0106820	82 Ω	1 B, C
R615	0104331	330 Ω	1 D
R616	0104681	680 Ω	1 W C.R. (E.L.R.)



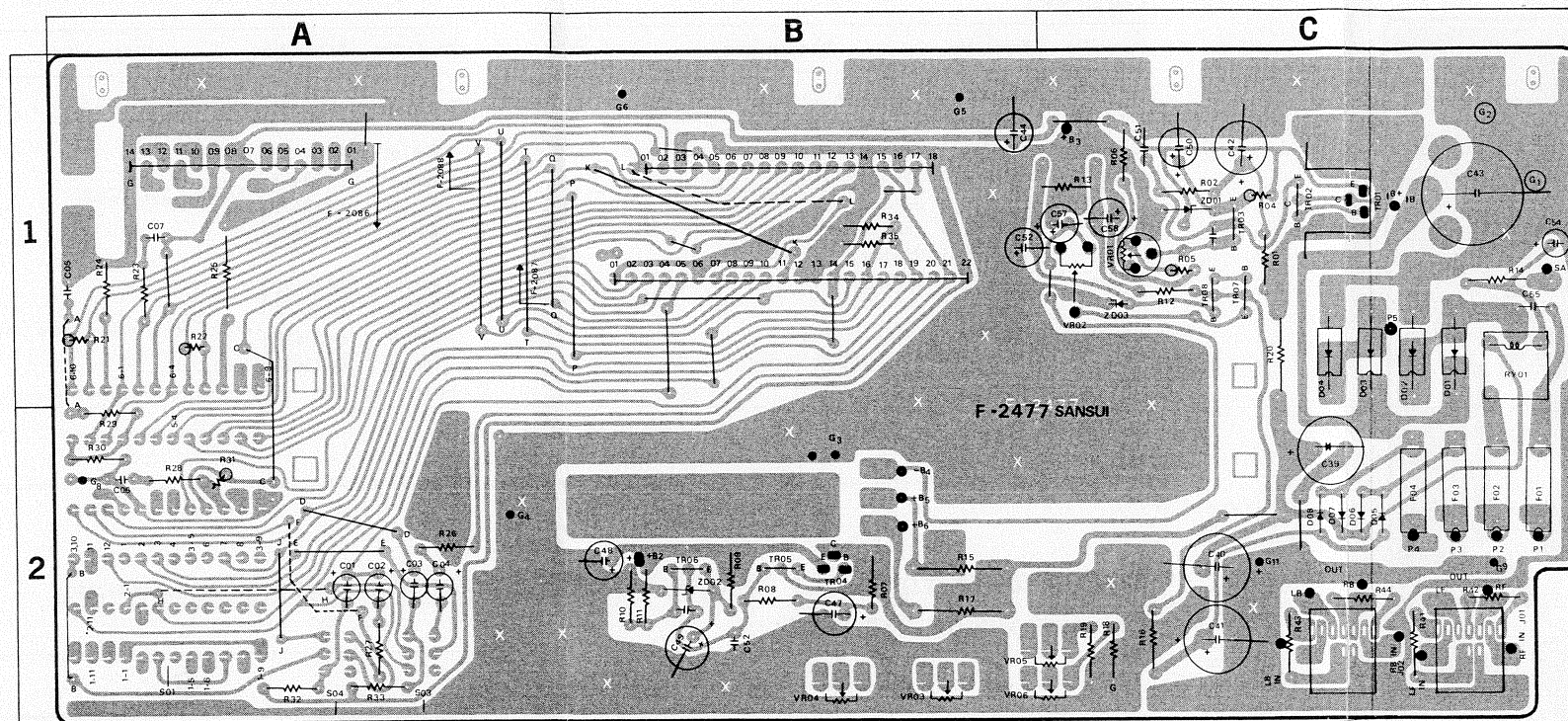
Abbreviations

C.R. : Carbon Resistor	BP.E.C.: Bi-Polar Electrolytic Capacitor
S.R. : Solid Resistor	C.C. : Ceramic capacitor
Ce.R. : Cement Resistor	Mi.C. : Mica Capacitor
M.R. : Metallized Film Resistor	O.C. : Oil Capacitor
M.C. : Mylar Capacitor	P.C. : Polystyrene Capacitor
E.C. : Electrolytic Capacitor	T.C. : Tantalum Capacitor

4-10. F-2441 Power Transistor Circuit Board (Stock No. 7592320 Complete Circuit Board F-2441) Conductor Side (QA-6000)



4-12. F-2477 Power Supply Circuit Board (Stock No. 7592360 Complete Circuit Board F-2477) Conductor Side (QA-5000)



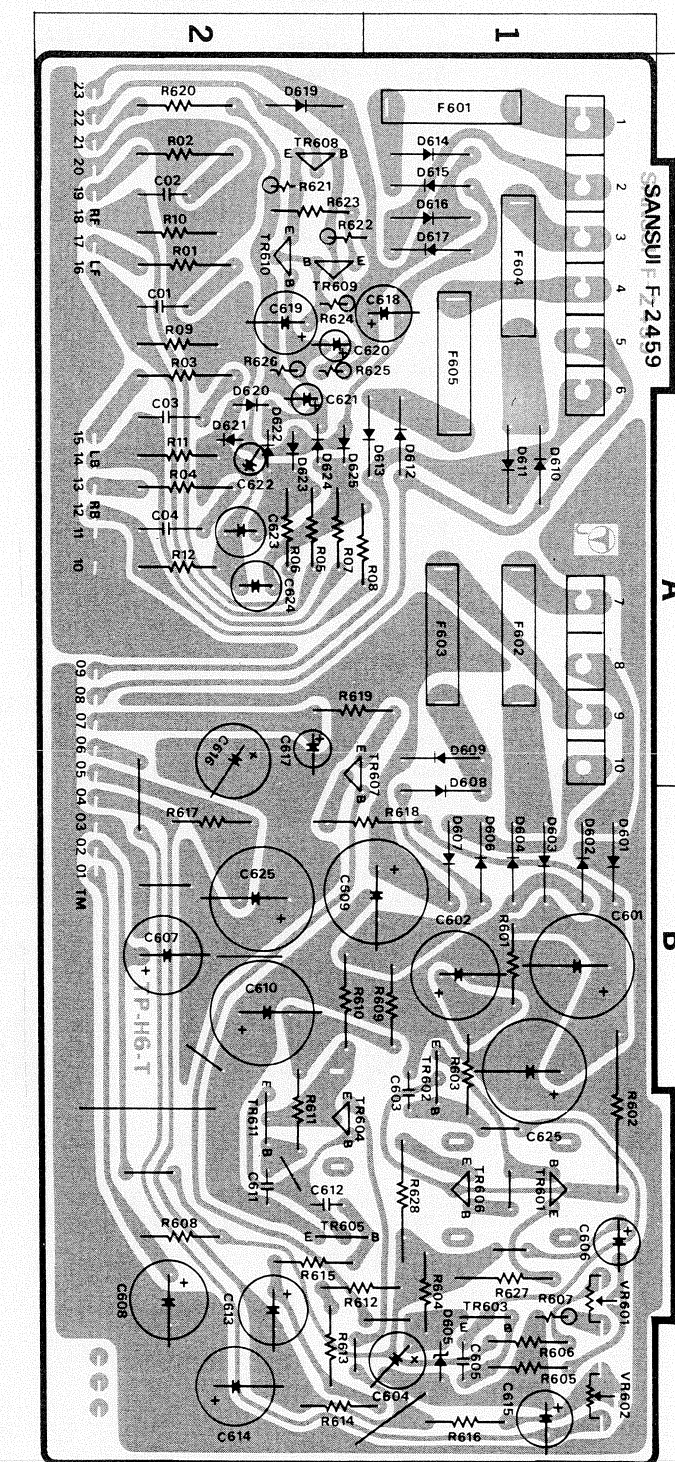
Parts List

Parts No.	Stock No.	Description	Position
TR01	0308362, 3	2SD330 (D, E)	1C
TR02	0306131, 2	2SC1364 (6, 7)	1C
TR03	0306131, 2	2SC1364 (6, 7)	1C
TR04	0308451, 2	2SD3356 (D, E)	2B
TR05	0306131, 2	2SC1364 (6, 7)	2B
TR06	0306131, 2	2SC1364 (6, 7)	2B
TR07	0300291, 2	2SA678 (6, 7)	1C
TR08	0300291, 2	2SA678 (6, 8)	1C
D01-04	0311240	SR3AM-4	1C
D05-08	0310340	10D-1	2C
D09	0310340	10D-1	2C
ZD01	0316320	RD-13E (C)	1C
ZD02	0316320	RD-13E (C)	2B
ZD03	0315550	RD-6A (M)	1C
C01	0519001	10 μ F (BRN)	2A
C02	0519001	10 μ F (BRN)	2A
C03	0519001	10 μ F (BRN)	2A
C04	0519001	10 μ F (BRN)	2A
C05	0600157	0.015 μ F	1A
C06	0600227	0.022 μ F	2A
C07	0600567	0.056 μ F	1A
C39	0516331	330 μ F	2C
C40	0516331	330 μ F	2C
C41	0516331	330 μ F	2C
C42	0515101	100 μ F	1C
C43	0549108	4700 μ F	1C
C44	0513470	47 μ F	1B
C45	0657223	0.022 μ F	50V C.C.
C46	0660151	150 pF	50V C.C.

Parts No.	Stock No.	Description	Position
C47	0515101	100 μ F	2B
C48	0515470	47 μ F	2B
C49	0512470	47 μ F	2B
C50	0512470	47 μ F	1C
C51	0512470	47 μ F	1C
C52	0512470	47 μ F	1B, C
C53	0512470	47 μ F	1B, C
C55	0659011	0.01 μ F 500V C.C.	1C
C56	0660151	150 pF 50V C.C.	1C
C601	0519001	10 μ F	25V E.C.
C602	0519001	10 μ F	25V E.C.
C603	0519001	10 μ F	25V E.C.
C604	0519001	10 μ F	25V E.C.
R01	0107562	5.6k Ω	1C
R02	0107392	3.9k Ω	1C
R03			
R04	0106392	3.9k Ω	1C
R05	0106123	12k Ω	1C
R06	0107103	10k Ω	1C
R07	0107392	3.9k Ω	2B
R08	0107152	1.5k Ω	2B
R09	0107682	6.8k Ω	2B
R10	0107123	12k Ω	2B
R11	0107153	15k Ω	2B
R12	0107562	5.6k Ω	1C
R13	0107122	1.2k Ω	1C
R14	0104152	1.5k Ω	1C
R15	0105222	2.2k Ω	2B
R16	0103562	5.6k Ω	2C
R17	0105222	2.2k Ω	2B

Parts No.	Stock No.	Description	Position
R18	0106102	1k Ω	2C
R19	0106102	1k Ω	2C
R20	0135390	39 Ω 5W Ce.R.	1C
R21	0106563	56k Ω	1A
R22	0106563	56k Ω	1A
R23	0107121	120 Ω	1A
R24	0107182	1.8k Ω	1A
R25	0107182	1.8k Ω	1A
R26	0107392	3.9k Ω	2A
R27	0107562	5.6k Ω	2A
R28	0107471	470 Ω	2A
R29	0107681	680 Ω	2A
R30	0107152	1.5k Ω	2A
R31	0106563	56k Ω	2A
R32	0107563	56k Ω	2A
R33	0107563	56k Ω	2A
R34	0107154	150k Ω	1B
R35	0107154	150k Ω	1B
R41	0103391	390 Ω	2C
R42	0103391	390 Ω	2C
R43	0103391	390 Ω	2C
R44	0103391	390 Ω	2C
F01, 02	0430910	6A	2C
F03, 04	0430830	1A	2C
RY01	1150150	Power Relay	1C
VR01	1035090	2.2k Ω (B)	1C
VR02	1032440	1k Ω (B)	2B
VR03, 04	1005150, 1	50k Ω (B) Carrier Level VR	2C, B
VR05, 06	1015100, 1	10k Ω \times 2 Separation VR	2C, B

4-13. F-2459 Power Supply Circuit Board (Stock No. 7501040 Complete Circuit Board F-2459) Conductor Side (QA-6000)



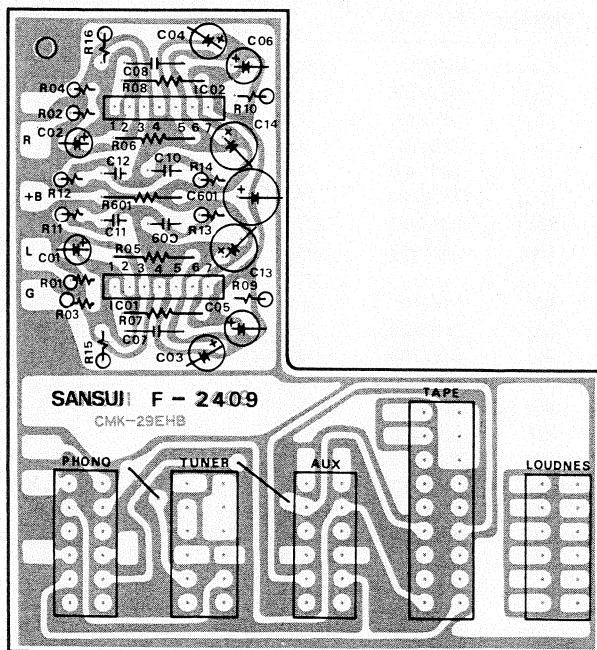
Abbreviations

C.R.	: Carbon Resistor	BP.E.C.	: Bi-Polar Electrolytic Capacitor
S.R.	: Solid Resistor	C.C.	: Ceramic capacitor
Ce.R.	: Cement Resistor	Mi.C.	: Mica Capacitor
M.R.	: Metallized Film Resistor	O.C.	: Oil Capacitor
M.C.	: Mylar Capacitor	P.C.	: Polystyrene Capacitor
E.C.	: Electrolytic Capacitor	T.C.	: Tantalum Capacitor

4-14. F-2409 Equalizer Circuit Board

(Stock No. 7550670 Complete Circuit Board F-2409)

Conductor Side (QA-5000)



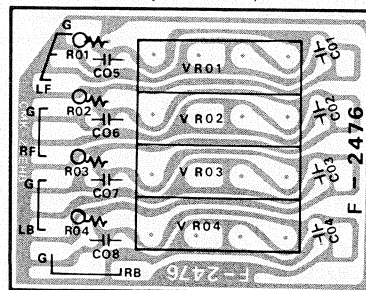
Parts List

Parts No.	Stock No.	Description
IC01, 02	0360190	BA312 IC
C01, 02	0519105	2.2 μ F 50V (BRN) E.C.
C03, 04	0511330	33 μ F 10V E.C.
C05, 06	0515499	4.7 μ F 50V (BRN) E.C.
C07, 08	0660101	100pF 50V C.C.
C09, 10	0600227	0.022 μ F 50V M.C.
C11, 12	0600566	0.0056 μ F 50V M.C.
C13, 14	0660151	150pF C.C.
C15, 16	0660101	100pF C.C.
C601	0514101	100 μ F E.C.
C705, 706	0657473	0.047 μ F C.C.
R01, 02	0106222	2.2k Ω 1/4W C.R. (E.L.R.)
R03, 04	0106104	100k Ω 1/4W C.R.
R05, 06	0107104	100k Ω 1/4W C.R.
R07, 08	0107474	470k Ω 1/4W C.R.
R09, 10	0106104	100k Ω 1/4W C.R. (E.L.R.)
R11, 12	0106123	12k Ω 1/4W C.R. (E.L.R.)
R13, 14	0106124	120k Ω 1/4W C.R. (E.L.R.)
R15, 16	0106221	220 Ω 1/4W C.R.
R601	0107221	220 Ω 1/4W C.R.
S02-05	1130140	Push Switch (Selector)

4-15. F-2476 Control Circuit Board

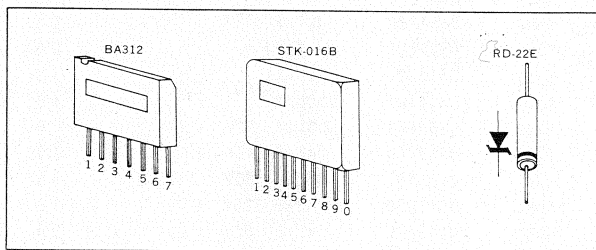
(Stock No. 7592350 Complete Circuit Board F-2476)

Conductor Side (QA-5000)



Parts List

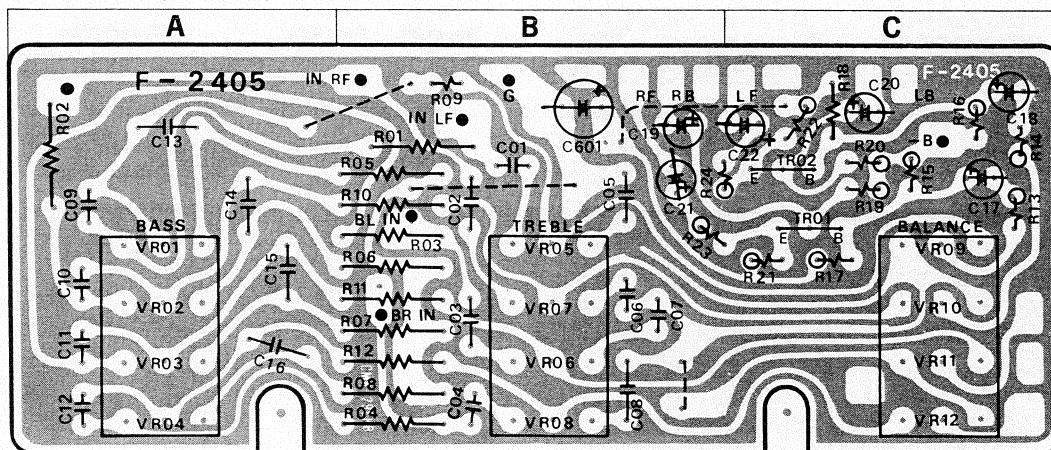
Parts No.	Stock No.	Description
C01, 02	0621151	150pF 50V P.C.
C03, 04	0621151	150pF 50V P.C.
C05, 06	0600187	0.018 μ F 50V M.C.
C07, 08	0600187	0.018 μ F 50V M.C.
R01, 02	0107273	27k Ω 1/4W C.R.
R03, 04	0107273	27k Ω 1/4W C.R.
VR01, 02	1060420, 1	250k Ω \times 4 Volume
VR03, 04	1060420, 1	250k Ω \times 4 Volume



Abbreviations

C.R. : Carbon Resistor	BP.E.C. : Bi-Polar Electrolytic Capacitor
S.R. : Solid Resistor	C.C. : Ceramic Capacitor
Ce.R. : Cement Resistor	Mi.C. : Mica Capacitor
M.R. : Metallized Film Resistor	O.C. : Oil Capacitor
M.C. : Mylar Capacitor	P.C. : Polystyrene Capacitor
E.C. : Electrolytic Capacitor	T.C. : Tantalum Capacitor

4-17. F-2405 Tone Control Circuit Board (Stock No. 7560950 Complete Circuit Board F-2405) Conductor Side (QA-5000)



Parts List

Parts No.	Stock No.	Description	Position
TP09, 10	0300470, 1	2SA726 $\text{\textcircled{R}}$ (F, G) Transistor	
C01, 02	0600150	0.0015 μF	B
C03, 04	0600150	0.0015 μF	B
C05, 06	0600107	0.01 μF	B
C07, 08	0600107	0.01 μF	B
C09, 10	0600127	0.012 μF	A
C11, 12	0600127	0.012 μF	A
C13, 14	0600108	0.1 μF	A
C15, 16	0600108	0.1 μF	A
C17, 18	0519101	1 μF	C
C19, 20	0519101	1 μF	B . C
C21, 22	0519101	1 μF	B . B C
C601	0513470	47 μF 25V E.C.	B
R01, 02	0107183	18k Ω	B . A
R03, 04	0107183	18k Ω	B
R05, 06	0107272	2.7k Ω $\frac{1}{4}\text{W}$ C.R.	B

Parts No.	Stock No.	Description	Position
R07, 08	0107272	2.7k Ω $\frac{1}{4}\text{W}$ C.R.	B
R09	0106103	10k Ω $\frac{1}{4}\text{W}$ C.R. (E.L.R)	B
R10, 11	0107103	10k Ω	B
R12	0107103	10k Ω $\frac{1}{4}\text{W}$ C.R.	B
R13, 14	0106102	1k Ω	C
R15, 16	0106224	220k Ω	C
R17, 18	0106823	82k Ω	C
R19, 20	0106392	3.9k Ω	C
R21, 22	0106392	3.9k Ω	C
R23, 24	0106101	100 Ω	B . B C
R601	0106822	8.2k Ω	
VR01, 02	1065040, 1	100k Ω (A) \times 4	A
VR03, 04			A
VR05, 06	1065040, 1	100k Ω (A) \times 4	B
VR07, 08			B
VR09, 10	1065030, 1	250k Ω (M, N) \times 4	C
VR11, 12			C

Troubleshooting Notices:

※When repairing the unit, refer to schematic diagram, block diagram, adjustment.

※Each voltage value shown in the schematic diagram is slightly different from an actual measured value. The each value was measured by V.T.V.M. at no input signal.

※In order to check the normal conductivity of transistor by volt-ohm meter (V.O.M.), please see the arrow direction showing current flows in Fig. 1.

- Put lead + side of V.O.M. to emitter or collector and lead - side to base of N.P.N. transistor.
- Put lead - side of V.O.M. to emitter or collector and lead + side to base of P.N.P. transistor.

(Terminal -, (+) of V.O.M. is connected with +, (-) side of battery inside).

※On Light Emitted Diode (LED)

The LED used as Pilot Lamp driven by constant current has characteristics of extreme low reverse breakdown voltage (DC

3V) and also it would be easily influenced by discharge voltage from capacitors in power amplifier section.

Therefore, after power switch is turned OFF and lapse of a few seconds, perform the replacement of LED.

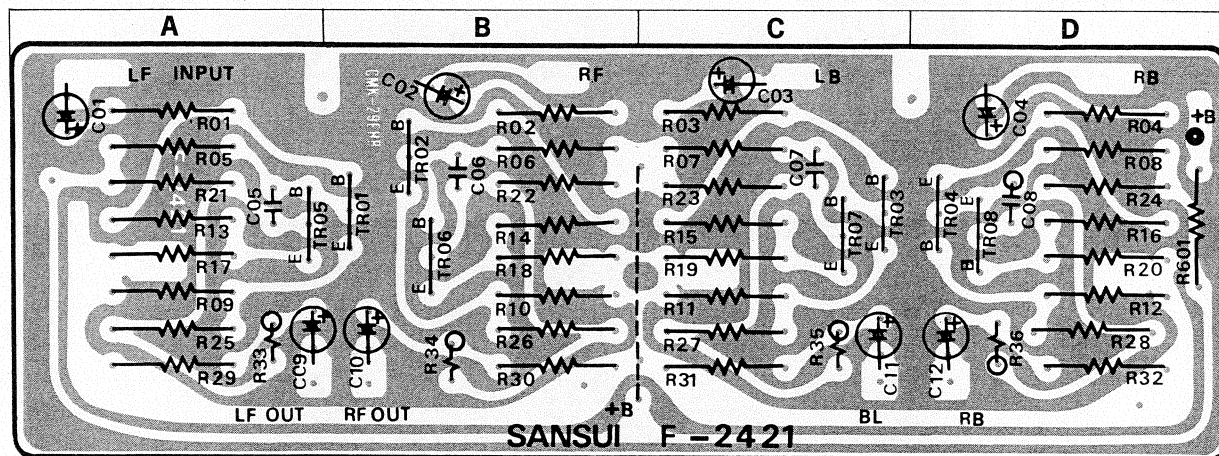
※Notice when replacing LED

Please refer to Fig. 2 when replacing LED, as the polarity of LED does not show on LED and the socket. If reversely connected, it becomes defective.

※Notice when replacing IC

- Do not vent the leads of IC more than 3 times.
- When using a soldering iron, IC should be absolutely isolated from current leakage of the iron. In order to protect IC against break-down, connect a lead wire from the iron to ground (chassis) as shown below. (Fig. 3)
- As IC is extremely weak against heat; use a soldering iron as quick as possible.

4-18. F-2421 Tone Control Circuit Board (Stock No. 7592340 Complete Circuit Board F-2421) Conductor Side (QA-5000)



Parts List

Parts No.	Stock No.	Description	Position
TR01, 02	0306070, 1	2SC1313 (F,G)	B. B
TR03, 04	0306070, 1	2SC1313 (F,G)	C. D
TR05, 06	0306070, 1	2SC1313 (F,G)	A. B
TR07, 08	0306070, 1	2SC1313 (F,G)	C. D
C01, 02	0519101	1 μ F	A. B
C03, 04	0519101	1 μ F	C. D
C05, 06	0660220	22 pF	A. B
C07, 08	0660220	22 pF	C. D
C09, 10	0515109	1 μ F	A, B. C
C11, 12	0515109	1 μ F	C. D
R01, 02	0107222	2.2k Ω	A. B
R03, 04	0107222	2.2k Ω	C. D
R05, 06	0107224	220k Ω	A. B
R07, 08	0107224	220k Ω	C. D

Parts No.	Stock No.	Description	Position
R09, 10	0107392	3.9k Ω	A. B
R11, 12	0107392	3.9k Ω	C. D
R13, 14	0107274	270k Ω	A. B
R15, 16	0107274	270k Ω	C. D
R17, 18	0107561	560 Ω	A. B
R19, 20	0107561	560 Ω	C. D
R21, 22	0107822	8.2k Ω	A. B
R23, 24	0107822	8.2k Ω	C. D
R25, 26	0107104	100k Ω	A. B
R27, 28	0107104	100k Ω	C. D
R29, 30	0107683	68k Ω	A. B
R31, 32	0107683	68k Ω	C. D
R33, 34	0106822	8.2k Ω	A. B
R35, 36	0106822	8.2k Ω	C. D
R601	0107822	8.2k Ω	D

Fig. 1

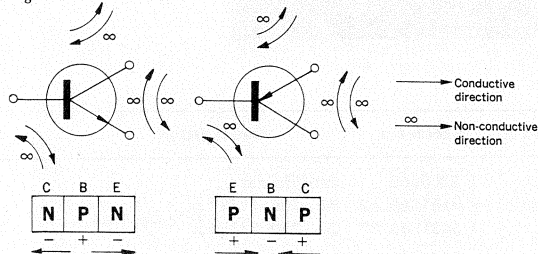


Fig. 2

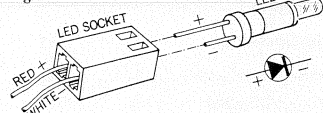
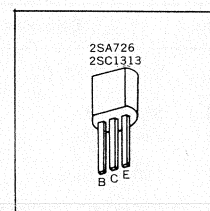
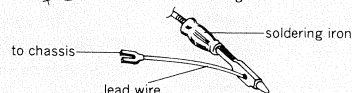


Fig. 3

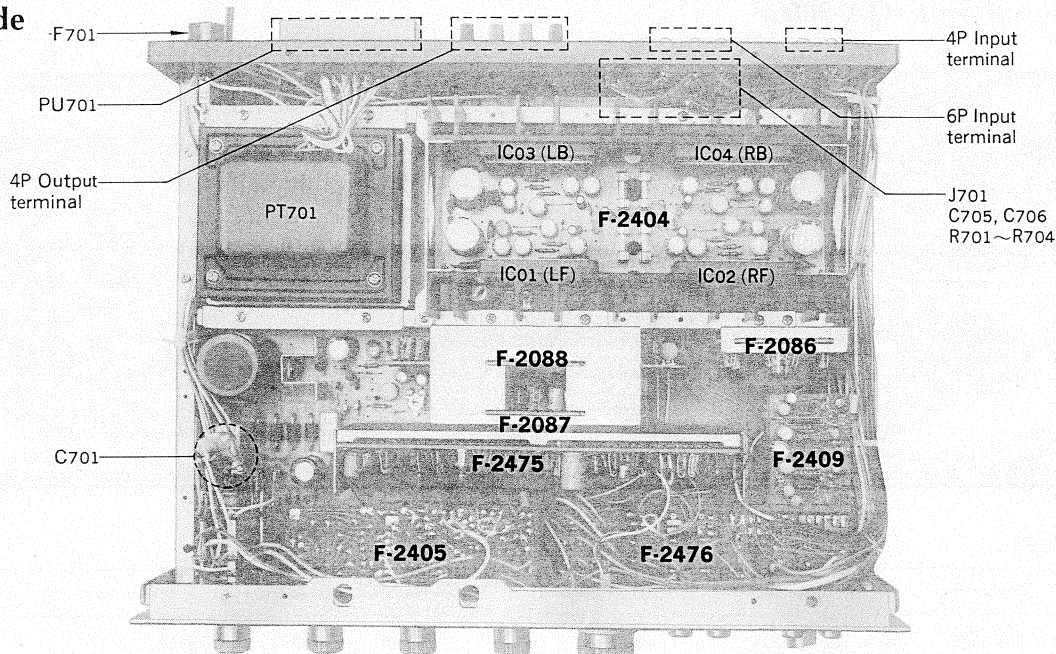


Abbreviations

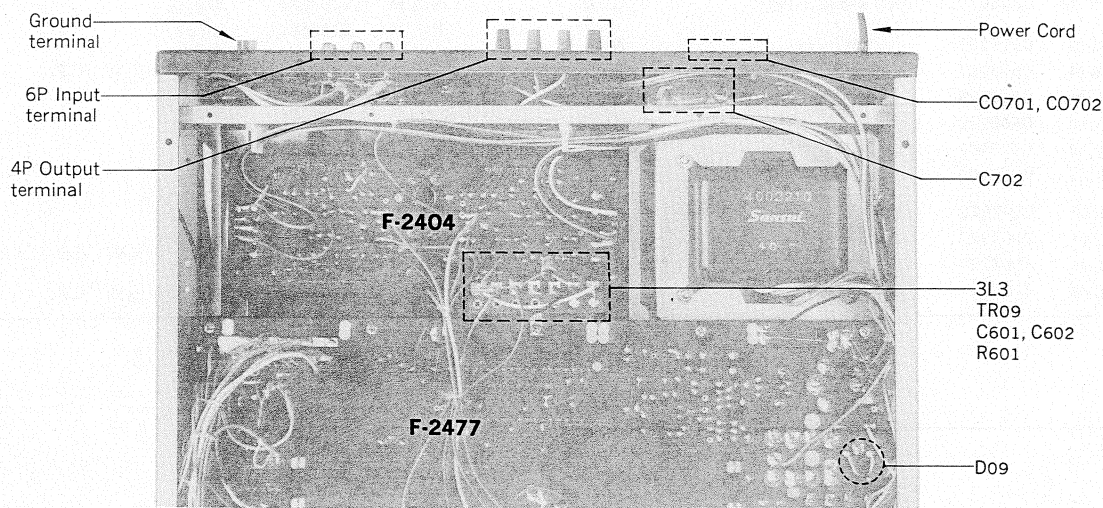
C.R. : Carbon Resistor	BP.E.C.: Bi-Polar Electrolytic Capacitor
S.R. : Solid Resistor	C.C. : Ceramic Capacitor
Ce.R. : Cement Resistor	Mi.C. : Mica Capacitor
M.R. : Metallized Film Resistor	O.C. : Oil Capacitor
M.C. : Mylar Capacitor	P.C. : Polystyrene Capacitor
E.C. : Electrolytic Capacitor	T.C. : Tantalum Capacitor

4-19. OTHER PARTS (QA-5000)

Top Side



Bottom Side



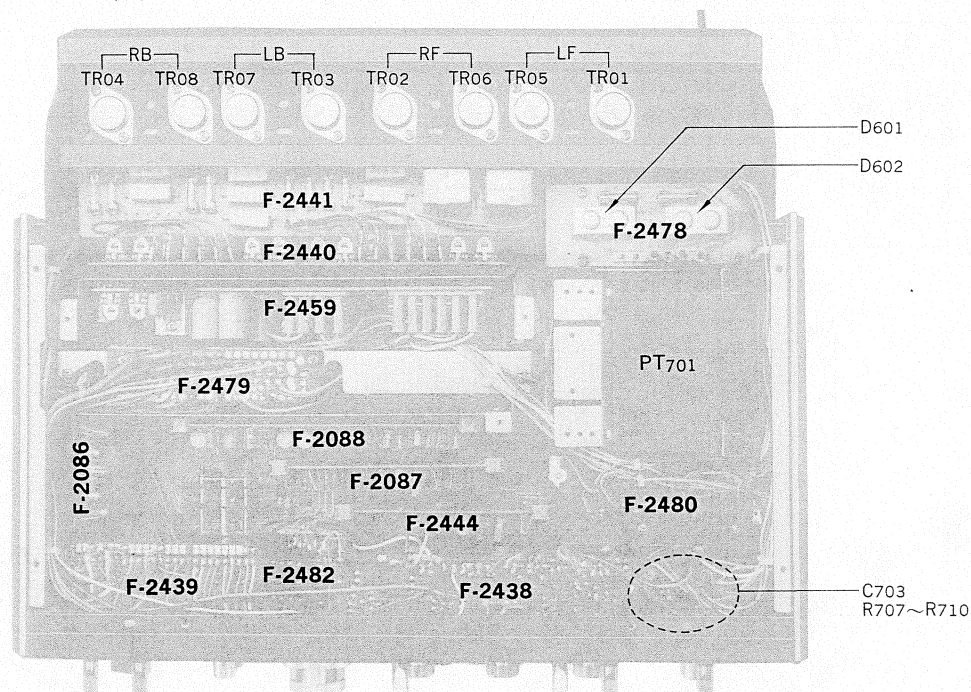
Other Parts List

Parts No.	Stock No.	Description
TR09	0306071, 2	2SC1313 (F, G)
IC01, 02	0360130	STK-016B
IC03, 04	0360130	STK-016B
D09	0310340	10D-1 Diode
C601	0514221	220 μ F 35V E.C.
C602	0515100	10 μ F 50V E.C.
C701	0605107	0.01 μ F
C702	0605476	0.0047 μ F 250V M.C.
C705, 706	0657473	0.047 μ F 50V C.C.
R601	0107123	12k Ω
R701, 702	0107394	390k Ω $\frac{1}{4}$ W C.R.
R703, 704	0107104	100k Ω

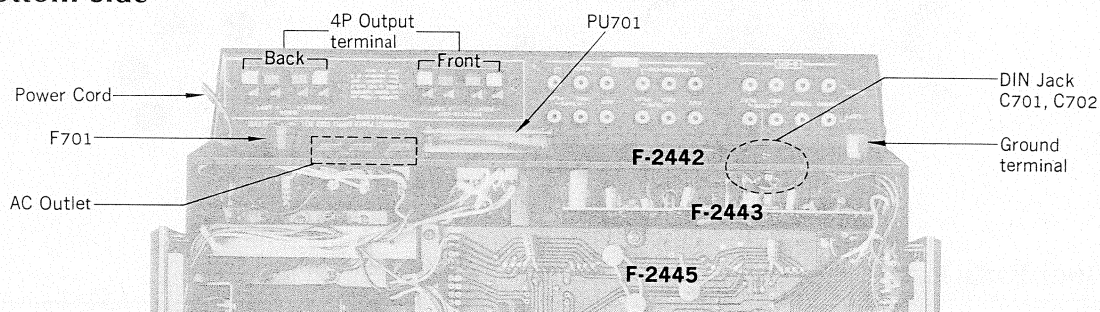
Parts No.	Stock No.	Description
F701	<div> 2300060 Fuse Holder 0431260, 52 3A (100, 117V) 0431240, 32 2A (220, 240V) </div>	Power Fuse
PU701	<div> 2410830 Voltage Selector, Socket 2410090 Voltage Selector, Plug </div>	
CO701, 702	2450060	AC Outlet
J701	2430040	DIN Connector
PT701	4002210	Power Transformer
	2230051	Ground terminal
	2210200	4P Output terminal
	2200330	6P Input terminal
	2200320	4P Input terminal
	3800020	Power Cord

4-20. OTHER PARTS (QA-6000)

Top Side



Bottom Side

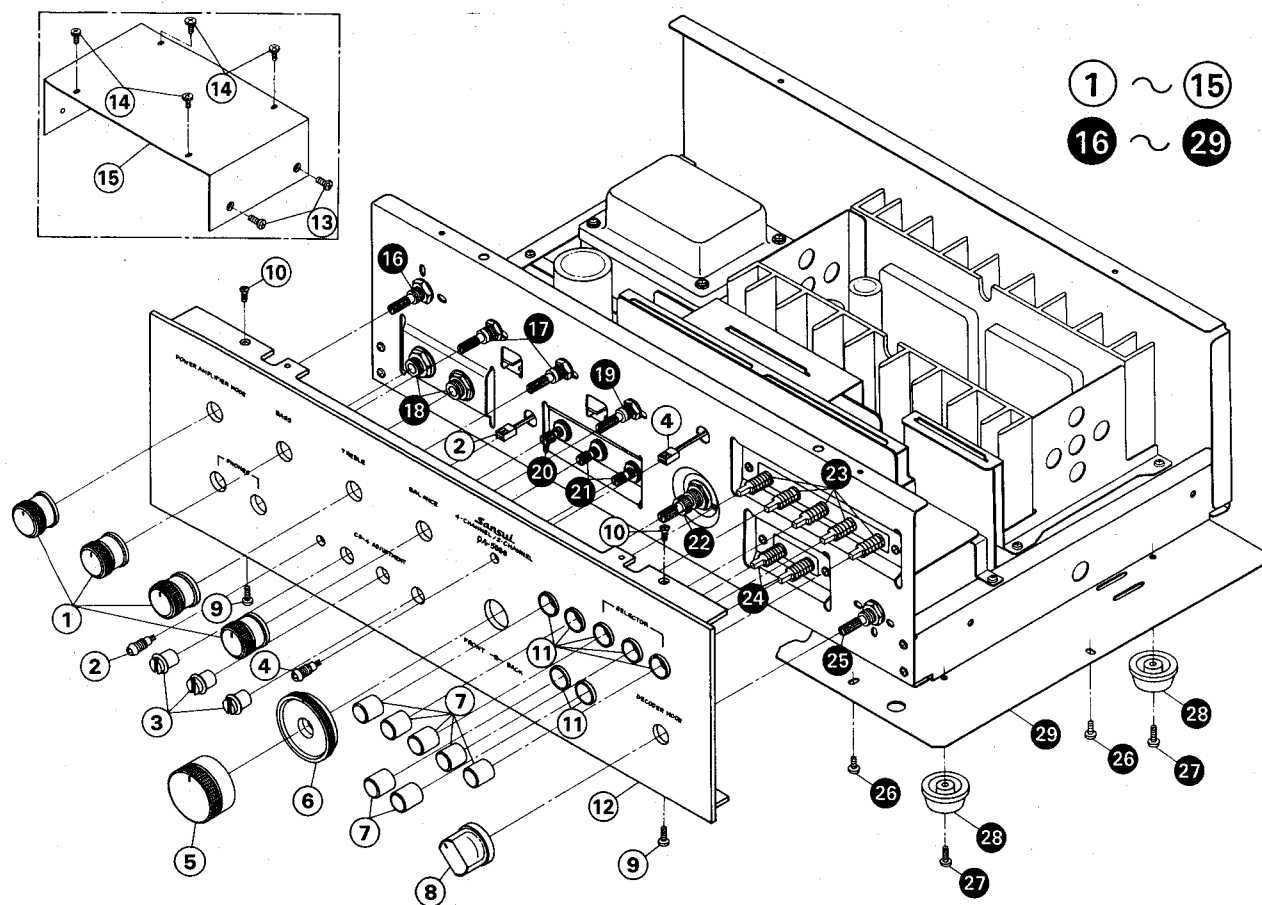


Other Parts List

Parts No.	Stock No.	Description
TR01, 02	0306212, 3	2SC1619A (O, Y)
TR03, 04	0306212, 3	2SC1619A (O, Y)
TR05, 06	0300632, 3	2SA808A (O, Y)
TR07, 08	0300632, 3	2SA808A (O, Y)
D601	0311320	SS-5R
D602	0311310	SS-5S
		Diode
C701, 702	0657473	0.047 μ F 50V C.C.
C703	0659801	0.01 μ F 1.4kV C.C.
R707, 708	0105221	220 Ω
R709, 710	0105221	220 Ω
		2W C.R.

Parts No.	Stock No.	Description
F701	2300060	Fuse Holder
	0431270, 2	4A (100, 117V)
	0431240, 2	2A (220, 240V)
		Power Fuse
PU701	2410830	Voltage Selector, Socket
	2410090, 1	Voltage Selector, Plug
PT701	4002200	Power Transformer
	2230050	Ground terminal
	2290100	4P Output terminal
	2450060	AC Outlet
	3800020	Power Cord
	2090040	DIN Jack

4-21. OTHER PARTS (Front Side, QA-5000)

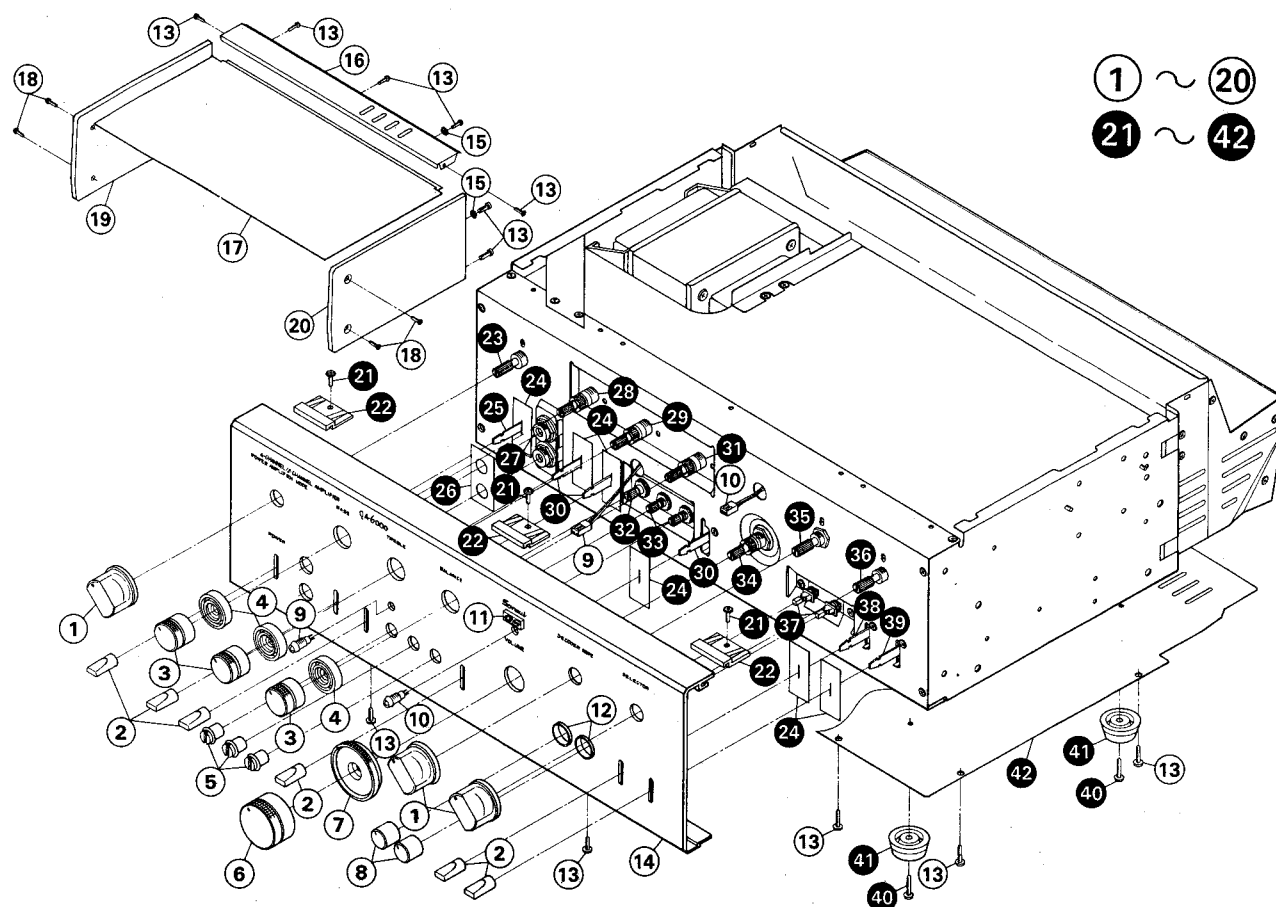


Other Parts List

Parts No.	Stock No.	Description
1	5317880	S-5 Type Knob, power and tone Control volume
2	7726100	Light Emitted Diode Ass'y (c)
3	5318030	CD-4 Adjustment Volume Knob
4	7726080	Light Emitted Diode Ass'y (A)
5	5318160	WIE-1 Type Knob, VOLUME
6	5318080	WO-4 Type Knob, VOLUME
7	5326500	Push Button
8	5317900	T-5 Type Knob, DECODER MODE Switch
9	5101143	Binding Head Screw, M3×6
10	5102843	Flat Countersunk Head Screw, M3×6
11	5396190	Knob Ring
12	5309530	Front Panel
13	5101161	Binding Head Screw, M4×6
14	5109222	Binding Head Tapping Screw, M3×8
15	5006390	Bonnet
16	1103510, 1	Rotary Switch Y-3-11-3
17	1065040, 1	100kΩ (C)×4 BASS, TREBLE Volume
18	2430240	Headphone Jack
19	1065030, 1	250kΩ (B)×4 BALANCE Volume
20	1015100, 1	10kΩ (B)×2 CARRIER LEVEL Volume
21	1005150, 1	50kΩ (C) SEPARATION Volume

Parts No.	Stock No.	Description
22	1060420, 1	250kΩ (A)×4 VOLUME
23	1131040	Push Switch (5 Stage)
24	1131030	Push Switch (2 Stage)
25	1106140	Rotary Switch SRE-6-22-5, DECODER MODE
26	5109222	Binding Head Tapping Screw, M3×8
27	5166520	Washer Head Tapping Screw, M3×12
28	5516940	Foot
29	5058320	Bottom Plote

4-22. OTHER PARTS, (Front Side QA-6000)



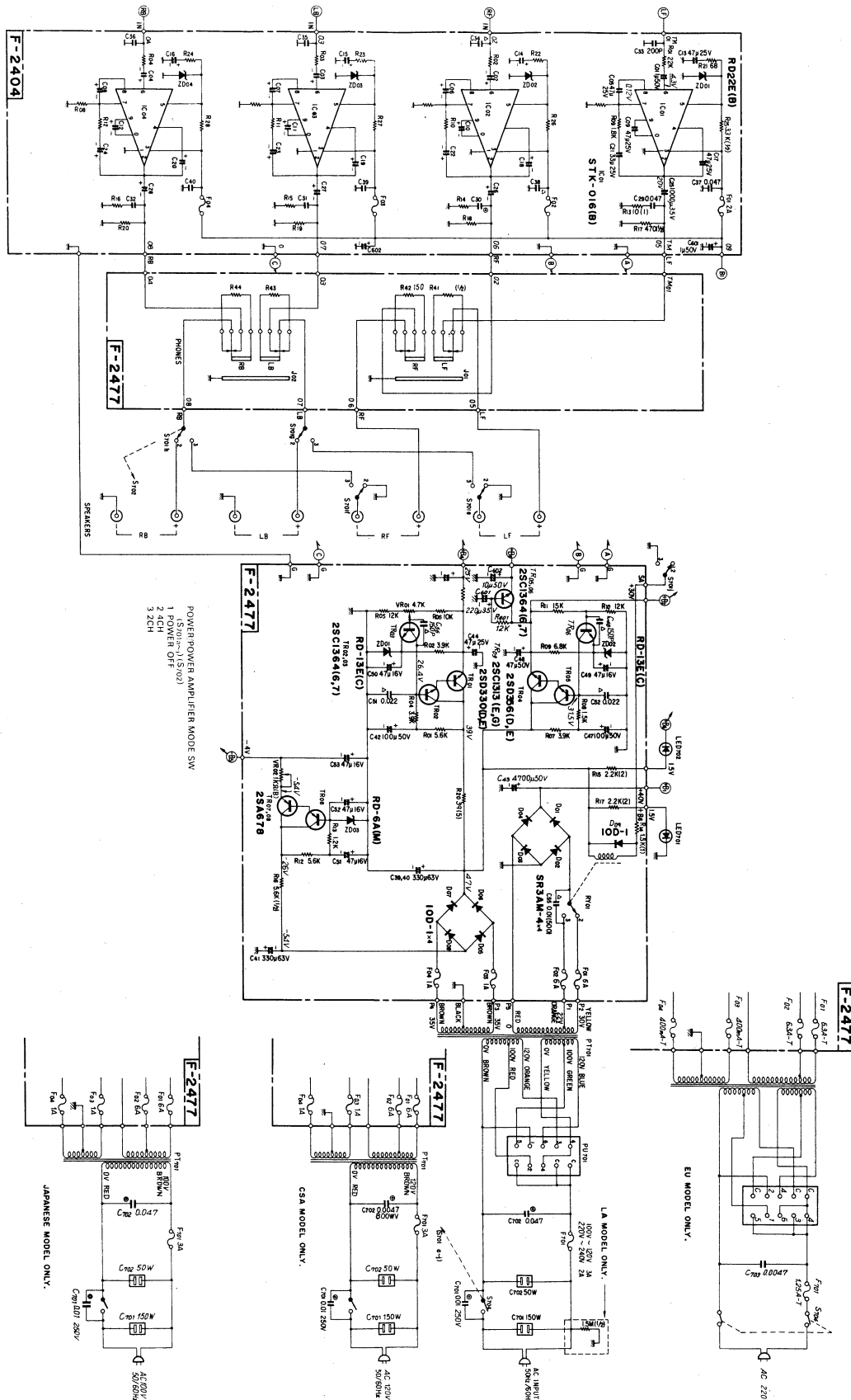
Other Parts List

Parts No.	Stock No.	Description
1	5318041	S-5 Type Knob, rotary switch
2	5326460	E-1 Type Knob, lever switch
3	5317990	W1-5 Type Knob, tone control volume
4	5318020	WO-5 Type Knob, tone control volume
5	5318030	Knob, CD-4 ADJUSTMENT volume
6	5318080	U-5 Type Knob, VOLUME
7	5318001	WO-3 Type Knob, VOLUME
8	5326500	Push Button
9	7726100	Light Emitted Diode Ass'y (C)
10	7726080	Light Emitted Diode Ass'y (A)
11	5336431	Badge, QS mark
12	5396190	Knob Ring
13	5109222	Binding Head Tapping Screw, M3×8
14	5309510	Front Panel
15	5122540	Toothed Lock Washer (External) 3φ
16	5006370	Sub Bonnet
17	5006380	Bonnet
18	5101161	Binding Head Screw, M4×6
19	5269810	Side Panel (Left)
20	5269821	Side Panel (Right)
21	5109122	Binding Head Screw, M3×8
22	5269880	Stopper (Front Panel)

Parts No.	Stock No.	Description
23	1102620, 1	Rotary Switch SRE-2-9-2
24	5047470	Masking (Lever Switch)
25	1170330	Lever Switch, POWER
26	5040190	Masking, headphone jack
27	2430170	Headphone Jack
28	1060430, 1	100kΩ(B)×4 BASS Volume
29	1060430, 1	100kΩ(B)×4 TREBLE Volume
30	1170370	Lever Switch
31	1060350, 1	250kΩ(MN)×4 BALANCE Volume
32	1015100, 1	10kΩ(B)×2 CARRIER LEVEL Volume
33	1005150, 1	50kΩ(C) SEPARATION Volume
34	1060420, 1	250kΩ(B)×4 VOLUME
35	1106140, 1	Rotary Switch SRE-6-22-5 (DECODER MODE)
36	1102610, 1	Rotary Switch SRE-2-5-3 (SELECTOR)
37	1131030	Push Switch (2 Stage)
38	1170370	Lever Switch SX-15-8
39	1170350	Lever Switch SX-15-6
40	5166520	Washer Head Tapping Screw, M3×12
41	5516940	Foot
42	5058310	Bottom Plate

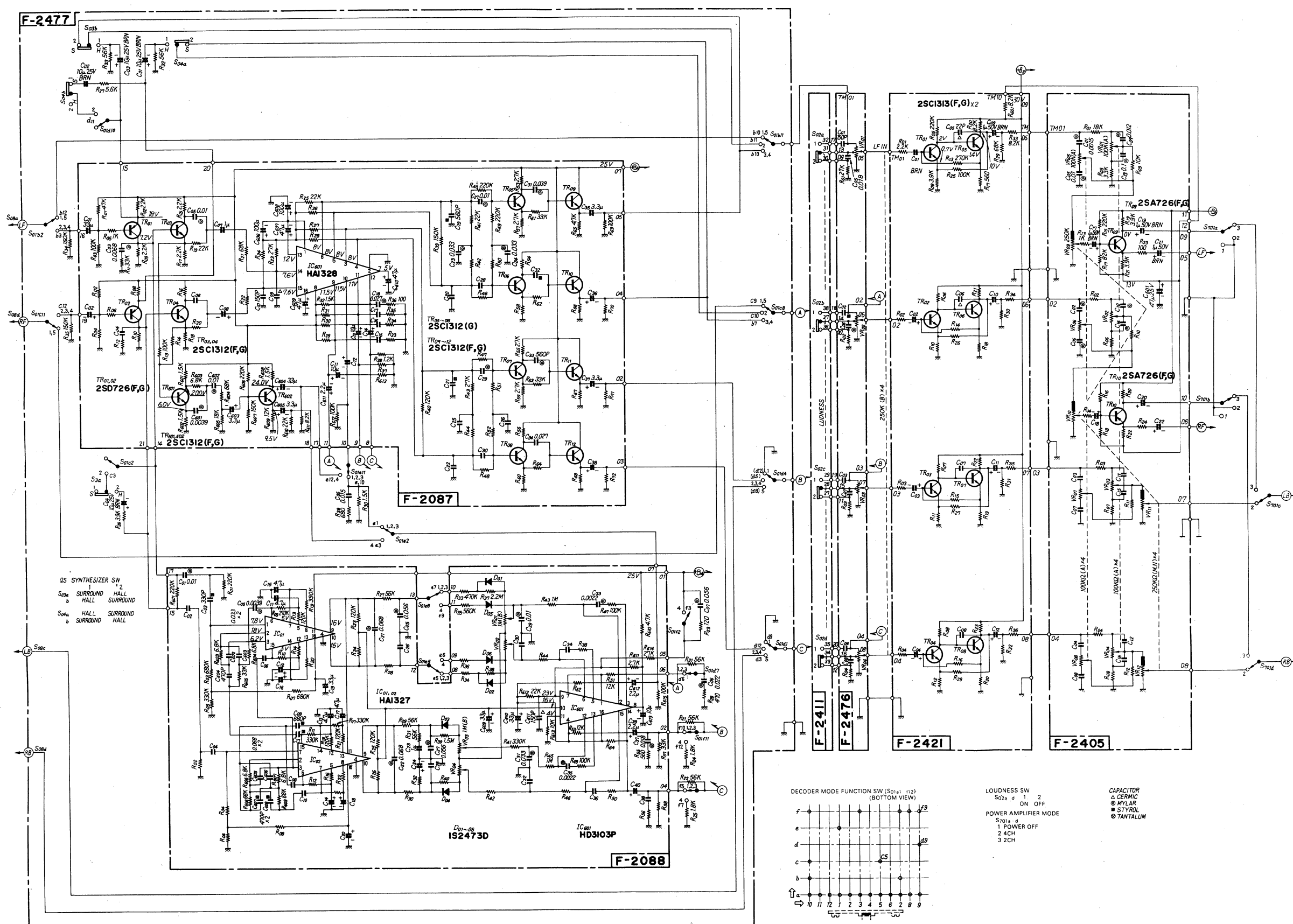
5. SCHEMATIC DIAGRAM

5-1. <QA-5000 Main & Power Supply Section>

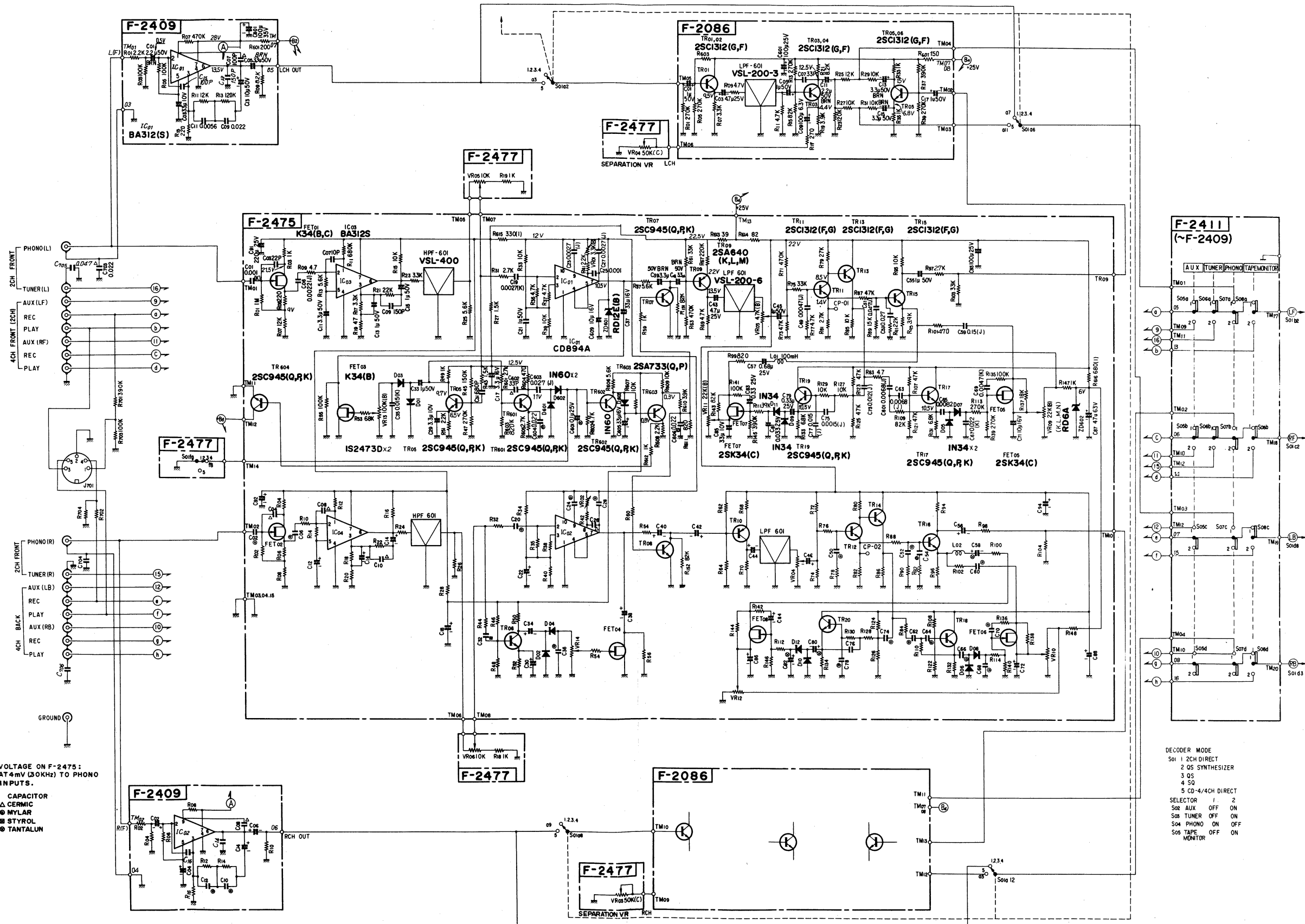


＜QA-5000 Vario-matrix & Tone Control Section＞

* Design and specifications subject to change without notice for improvements.

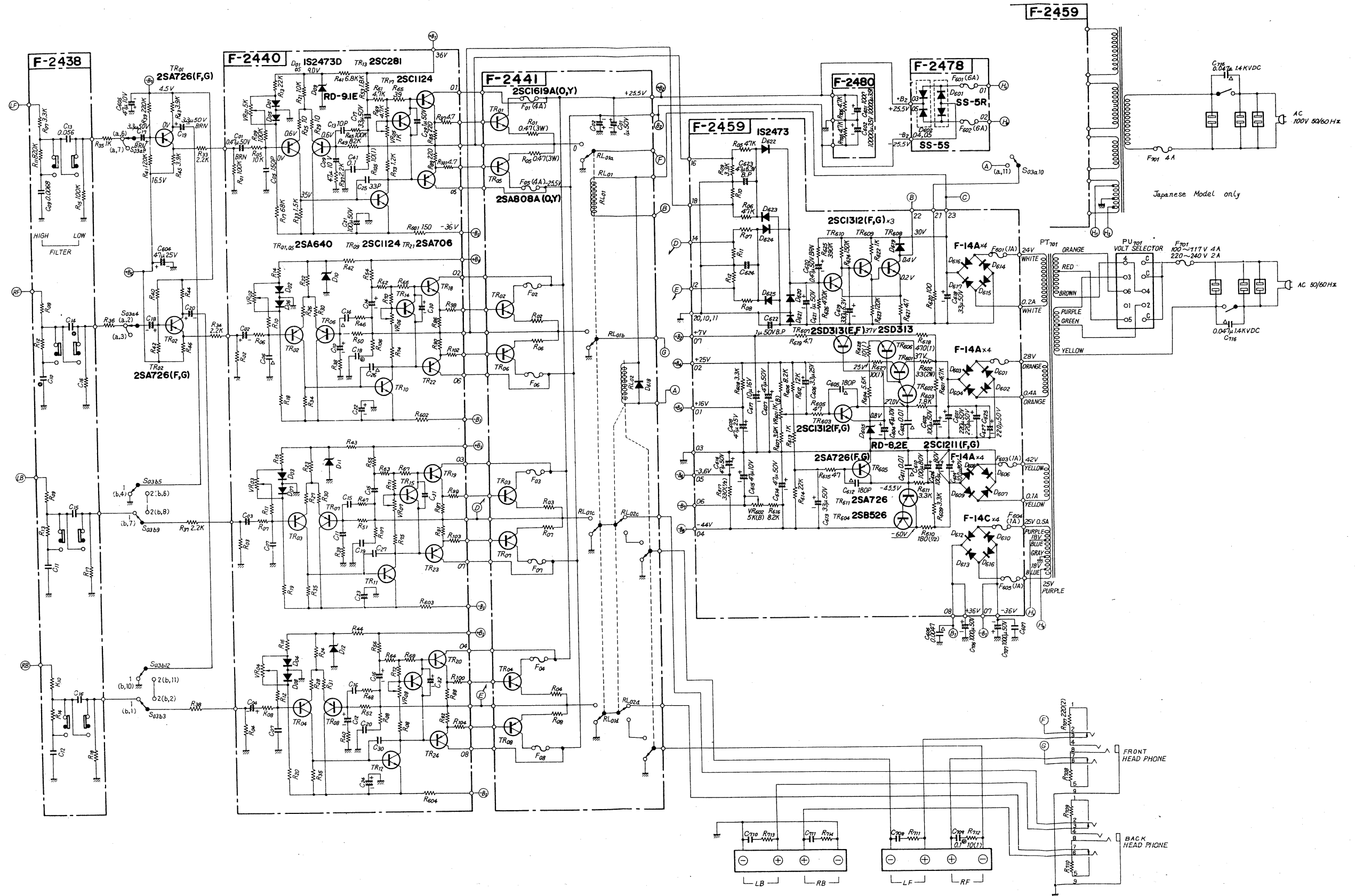


<QA-5000 CD-4 Section>

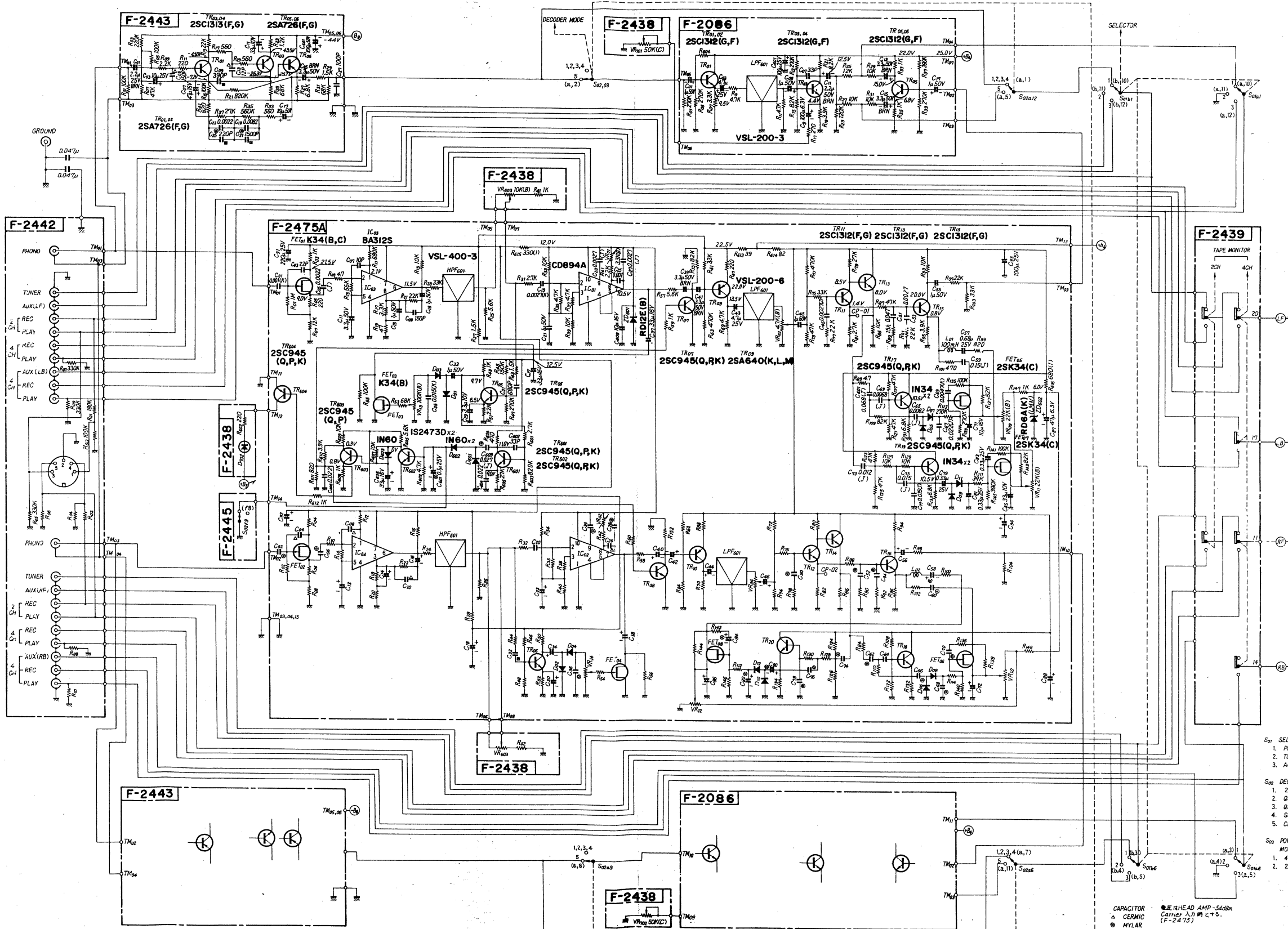


5-2. QA-6000 Main & Power Supply Section

* Design and specifications subject to change without notice for improvements.

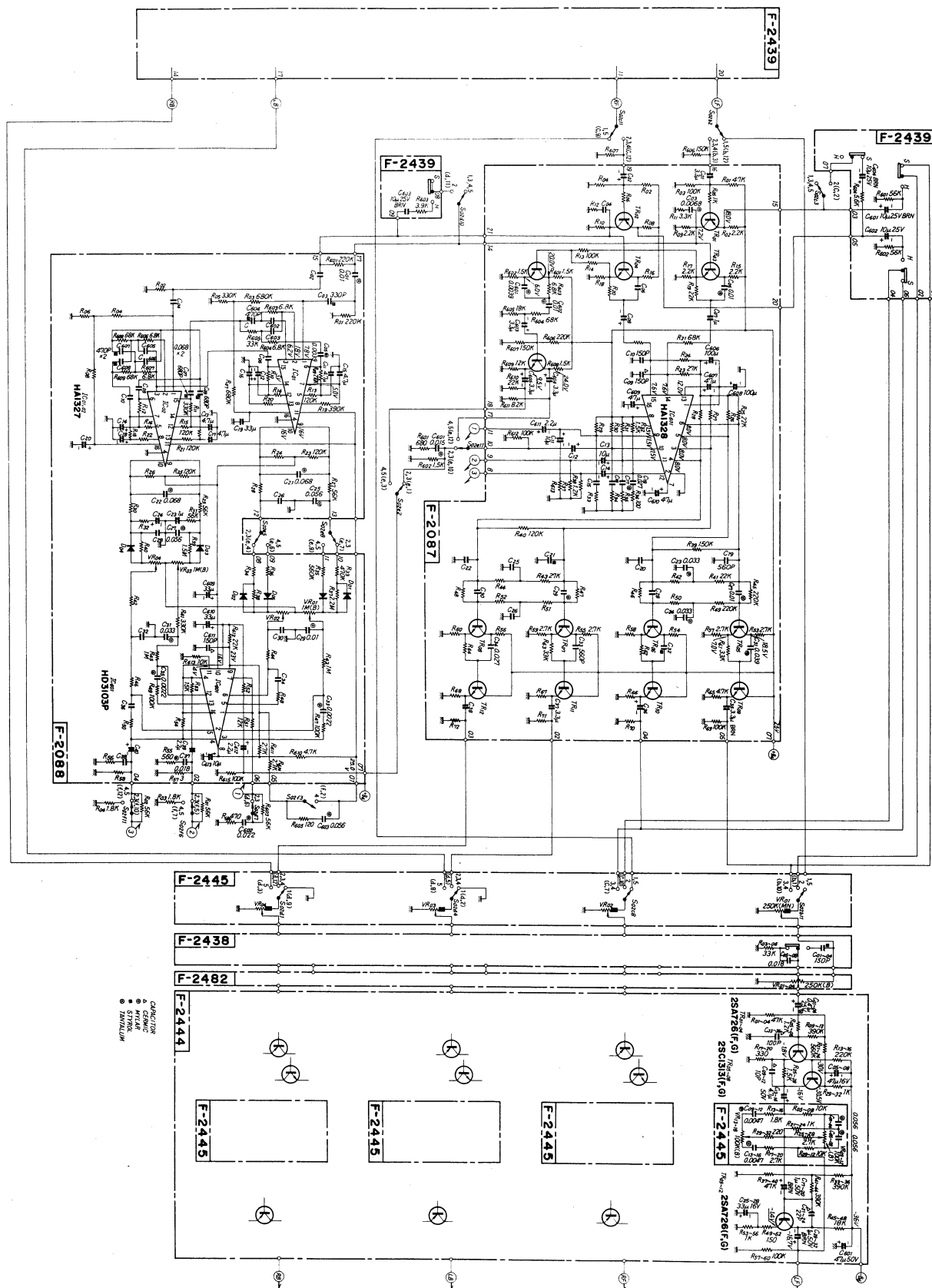


＜QA-6000 CD-4 Section＞



<QA-6000 Vario-matrix & Tone Control Section>

* Design and specifications subject to change without notice for improvements.



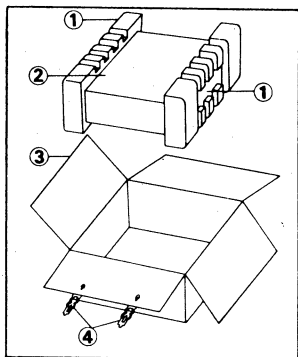
6. PACKING LIST

6-1. QA-5000

Parts No.	Stock No.	Description
1	9027820	Stylofoam Packing
2	9116153	Vinyl Cover
3	9008140	Carton Case
4	5996080	Curl Stopper

6-2. QA-6000

Parts No.	Stock No.	Description
1	9027860	Stylofoam Packing
2	9116143	Vinyl Cover
3	9008220	Carton Case
4	5996080	Curl Stopper



7. ACCESSORY PARTS LIST

7-1. QA-5000

Stock No.	Description
0433610	Quick Acting Fuse
9208500	Operating Instructions
9228500	Operating Instructions Sheet
9416010	CD-4 Adjustment Record

7-2. QA-6000

Stock No.	Description
0433630	4A 250V Quick Acting Fuse
5066250	Pin Jack Cover
9208480	Operating Instructions
9228480	Operating Instruction Sheet
9416010	CD-4 Adjustment Record



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SM034

Printed in Japan (45030M)